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PACIFIC FISHERMAN

Potomac Skirmish Gains Ground . p11

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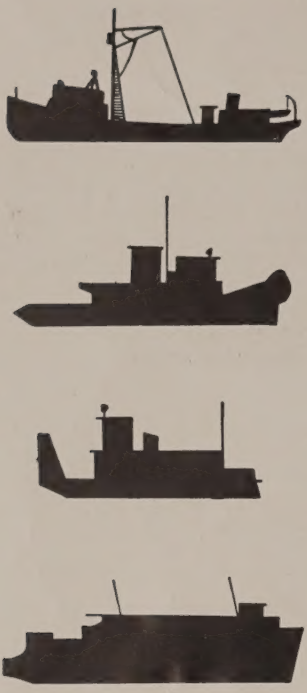
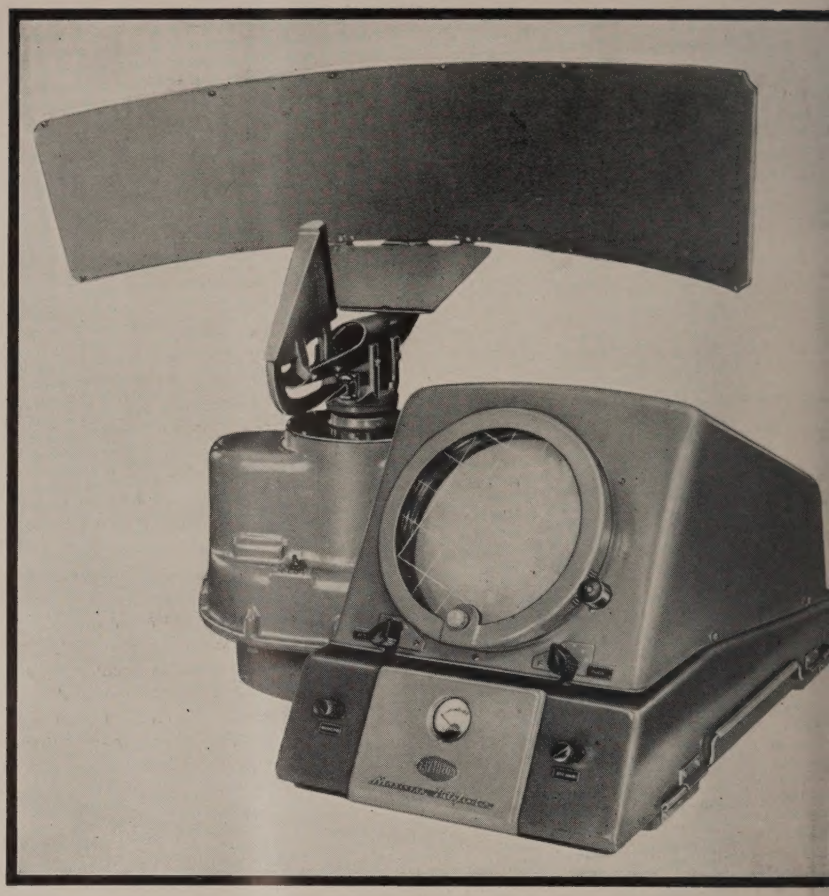
MILLER FREEMAN PUBLICATION





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A MILLER FREEMAN PUBLICATION

A Parade of Facts, Some Bright, Some Grim

• Washington state fisheries department recently revealed to industry in a day-long symposium some of the problems, researches, accomplishments, disappointments and — be it admitted — failures in its salmon program.

Robert J. Schoettler, director, opened with: "Beside regulation and administration, we shoulder an increasing burden in off-setting the effect of a growing population upon our salmon resources. Our philosophy: We have a problem, and we must attack it scientifically, administratively, technically."

• Marshalled facts made a powerful impression as they were paraded before the industry people in a day-long procession. Some were encouraging, some were grim—all commanded the closest attention.

High-lights:

The interest of private dam owners in reducing the adverse effect of their structures upon fish life.

Possibilities of greatly reducing the loss of downstream migrants by re-designing and reconstructing spillways along "ski-jump" lines, which keep the young fish clear of the face of the dam.

Water demand of adequate fishways and downstream facilities is great, and as much or more of a problem than actual financial outlay. Dams are designed to store water for *use*, and the portion diverted to fish protection is lost from the primary purpose of the dam. This is a particularly knotty consideration at Tacoma's Cowlitz dams.

The Hell's Canyon dams on the Snake River present problems of particular urgency, because the hour is *now*, and the problem one of unprecedented magnitude. These dams involve a vertical head of 1,100 feet. What *can* be done to protect migratory fish under such circumstances? The answer may be of immense value on the Fraser River some day.

What We Gave, And What We Got

• Tariff concessions on fishery products granted or secured by the United States at the Geneva conference were of relatively minor importance to the Pacific industry.

One of the items most directly pertinent was the reduction in ad valorem duty on mild cured salmon from Canada from 10% to 8½%. Some canned specialties such as canned salmon and canned smoked sturgeon will have duty reduced from 30% to 25.5%. Duty on sardines from Norway will decline from 15% to 12½%. These reductions will be attained in full only after a period of three years, the lowering being at the rate of one-third per year.

Peruvian bonito packed in brine is bound on the free list at 12½% ad valorem.

Concessions *to* United States on fish products included reduction from 20% to 15% on canned salmon entering Belgium, Netherlands and Luxembourg. Shrimp and oysters were granted substantial reductions by Canada.

Frozen Tuna Imports Drop

• Decline of 10% in frozen tuna imports to Southern California was registered in the first five months of this year. The drop was altogether in the shipments from Japan, and was even more closely localized in the Japanese Albacore imports.

This is CONTINENTAL'S new

dedicated to the production o

The product of the handsome building pictured here will be more rapid improvement of cans and canning methods, for the immediate benefit of Continental customers.

This is the new multi-million-dollar research and development center of Continental's Metal Division, located in Chicago. It brings together under one roof 265 creative-minded scientists and engineers. With as many more technicians and assistants, they function as a closely knit team—in developing better materials, processes and machines—and in taking a fresh, new look at package design.

At their disposal are the most modern chemical, physical and engineering laboratories. Also contained in the 260,000 square feet of the center are complete pilot-plant facilities for checking out any individual proposal against considerations of cost, adaptability to present equipment, and good production practices.

Backing up the new center are other Metal Division laboratories at New York and Hayward, Calif., the Central Research and Development Division facilities in Chicago, which handle long-range experimental work, and 18 field laboratories across the nation.

esearch and development center

etter cans and canning methods

To all our friends in the
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Central Division: 135 So. La Salle St., Chicago 3
Pacific Division: Russ Building, San Francisco 4

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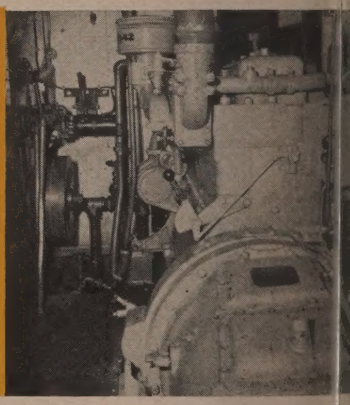
in the Northwest fleet



ONE of the first of the new CAT* D342 Engines installed on the Pacific Coast is powering the purse seiner *Lloyd*, owned by Ingvald Stave, of Seattle, Washington.

Mr. Stave's need for a new engine came at just the right time. He had heard enough from Caterpillar owners to convince him that was what he wanted.

The *Lloyd* is 59 feet, 9 inches long, with 15-foot beam and 8-foot draft. Fishing in Alaskan waters and off the Washington coast, her average catch is 65,000 pounds of halibut. The new D342 gives her a speed of 9½ knots.

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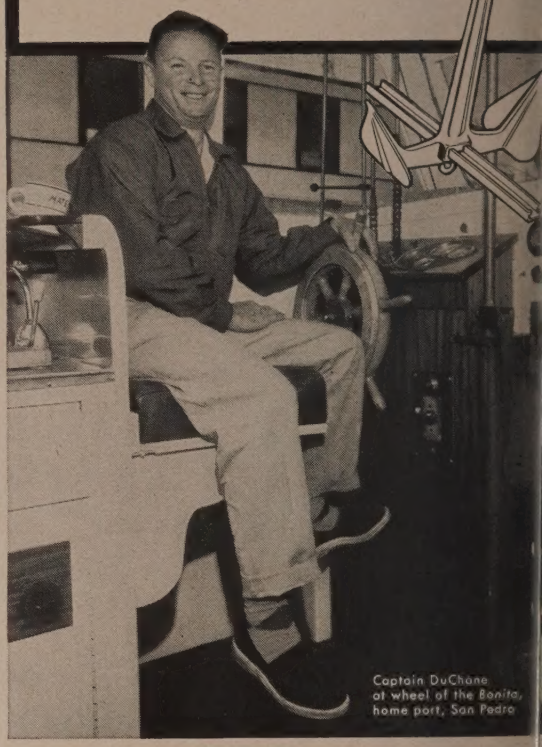
states Captain Don DuChane



Captain DuChane at wheel of the Bonita, home port, San Pedro

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pper Misetich is a member of the rmen's Cooperative Association, a

group of 150 boats using over 200,000 Spongex floats.

Mr. Mason Case, general manager of the Cooperative, which incidentally is the largest fish producing organization tonnagewise in the nation, says, "Spongex floats have a very small replacement factor, occasioned only by accident—the breakage average in four years' experience is about 1% per year. The proof of their success is shown by the fact it's the only float we can sell today".

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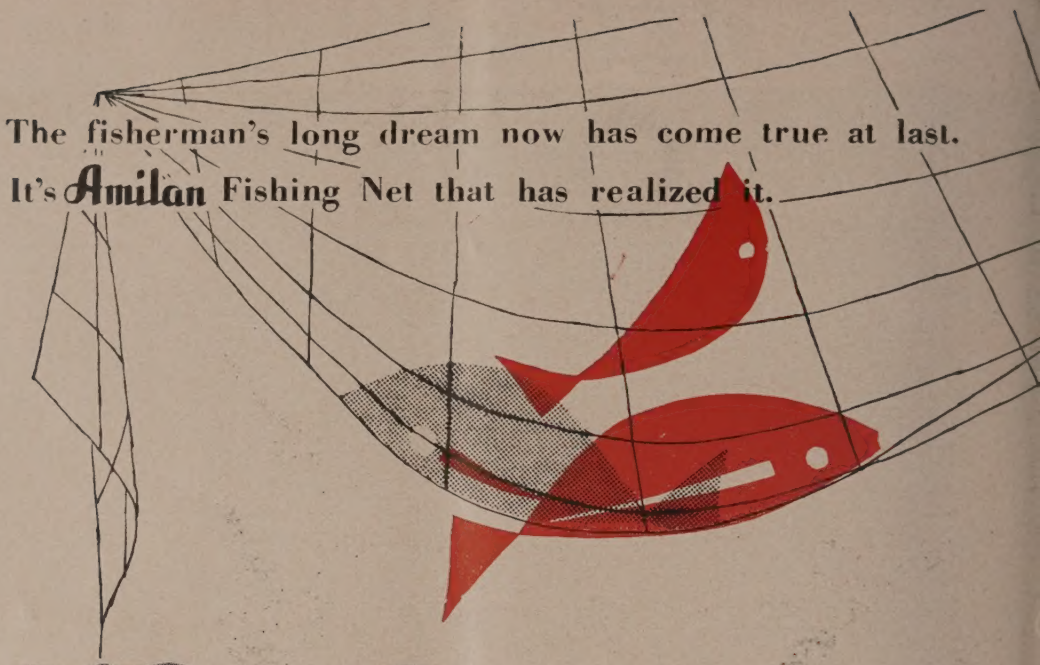

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PACIFIC FISHERMAN JULY 1956

sheries Gain Higher Ground
Skirmishing Along Potomac

ood gains for the American fishing industry are resulting from the moves counter-moves of Election Year in Washington.

sheries are getting more attention and more consideration, and are being nized as a more important element in the national economy than ever has the case before.

fter the political smoke has cleared away, and the heat of battle has died , and *some* of the promises forgotten, fisheries will have gained ground strategic position along the Potomac.

erhaps even on the high seas, and in the capitals of other nations, they will better standing—*perhaps;* but that's less certain.

his is a considered condensation of impressions drawn from conversations leaders of the fishing industry from fthe four corners of the United States a period of the past two months.

sh and Wildlife Divorced; ermanent Fund is Proposed

ut of a murky sky—not out of ar one—flashed the Administra- Plan for Fisheries early in June. effected at a stroke of Executive r the division of Fisheries from life, which the industry long had oned.

is much becomes an accomp- d fact July 1, at the direction he President, when a re-born au of Fisheries will "take over nistration of all fishery respon- ties now vested in the Fish and life Service."

egislatively, the Administration for Fisheries goes much er—

It would ask Congress to make anent the principles of the soon- xpire Saltonstall - Kennedy Act, eliminating the limitation of $3,000,000 annually on the funds derived from imports of fishery products which could be applied by the Secretary of the Interior to fisheries research and industry benefit.

2. It would ask Congress to declare a strong national policy for fisheries as an industry essential to the sustenance and defense of the nation; and to establish a special $10,000,000 revolving fund for low-interest loans for the maintenance, repair and equipment of fishing vessels.

● In these respects the Administration Plan for Fisheries goes far beyond the Magnuson Bill.

However, it falls short of that measure in:

1. Not providing Assistant Secretary rank for the chief administrator of the new Bureau of Fisheries.

2. Not creating machinery for continuity of the policy-making function for fisheries with the change of administrative function.

3. The degree to which it authorizes the fisheries agency to insinuate itself into the established mechanism for study of imports and their effect upon the economy; and of what to do about it.

● Off-hand it would appear that the Administration Plan for Fisheries had borrowed a number of points from the several Magnuson Measures. There certainly are aspects of similarity.

On the other hand, it is known that Interior has been studying this matter for months; and it is conceivable that some of its planners may have "leaked" some of Interior's ideas to Magnuson's senate committee staff.

● Any way you look at it, the Administration proposal for a permanent "Saltonstall" policy without the $3,000,000 ceiling on the fisheries fund was a master stroke, and one of the best things that yet has happened for the American fisheries.

Middle-of-the-Channel Bonner Bill Launched

● Coincidental with the announcement of the Administration's Plan for Fisheries, Representative Herbert C. Bonner, chairman of the House Committee on Merchant Marine and Fisheries, introduced a bill of his own.

Probably it was a coincidence, but the Bonner Bill seemed to implement one aspect of the Administration Plan

so neatly that some close observers saw it as an extension of the plan.

While the Bonner Bill originated with the committee chairman, Washington's Congressman Thor C. Tollefson, ranking Republican member, indicated that it reflected his thinking closely, and would have his support.

The House bill seemed to some in the fisheries as a satisfactory extension of the Administration Plan.

Principal point of new thinking in the Bonner Bill was its provision of an Undersecretary of the Interior to have direction over the Fisheries Service and the Wildlife Service, which would be separated, with a director over each.

The Undersecretary—note that this is an office ranking above Assistant Secretary — would have the authority to formulate policy, which the Magnuson Measure would give to a commission devoid of any administrative authority.

In this proposal for an Undersecretary, the Bonner Bill may blunt the attack of the professional Wildlife lobby, which fought the Magnuson Measure. At the same time, its proposal for a ranking officer to head *both* the Fisheries and Wildlife Service might well prove acceptable to the Administration as an extension of its Fisheries Plan which would be almost certain to command the approval of the industry.

Senate Passes Sweepingly Revised Magnuson Measure

● Swift passage of a revamped Magnuson Bill (SB 3275) by the Senate late in May was a dramatic stroke, for it went through without an adverse vote; and moved over to the House.

Actually, the bill as passed bore only family resemblance to the measures introduced earlier by the senator from Washington. Virtually all features to which the industry, and even Interior, had objected had been shorn away; and at least one new and attractive one added. This was the provision that would make the chairman of the to-be-created U.S. Fisheries Commission an Assistant Secretary of the Interior *and* head of the Fisheries Division of Interior, to which were given *all administrative functions*. The five-man Fisheries Commission's "primary responsibility . . . shall be the formulation of all policies necessary in the administration by the Department of the Interior . . . relating to fishing and fisheries".

This was spelled-out further: "The Fisheries *Division* shall be an administrative organization and the *Commission* shall be a policymaking body".

In other words, the Magnuson Bill as passed differed sweepingly from its earlier versions. It had gained an Assistant Secretary, but the Commission it created had been reduced to an advisory capacity only. The Assistant Secretary would be chairman of the Fisheries Commission and administrator of the Fisheries Division, and very much The Boss.

● Of its other ranking features, the Magnuson Bill retained its strong declaration of national policy toward fisheries; and its provision for continuity of the Fisheries Commission, even in its emasculated policymaking only form, from one administration to the next.

It also would assure the Fisheries Commission of a voice in international fisheries affairs; and a greatly-modified authority to investigate and report upon imports of fish products and their effect upon the domestic industry.

● Swift passage of S. 3275 in the Senate, plus some of its residual features, spurred instant opposition as it came up in the House.

The professional conservationist and wildlife organizations rose-up over the Assistant Secretary of Interior for Fisheries. They'd have none of that.

The Department of State resented any dictation as to whom it should designate to negotiate with other countries.

The American Seafood Distributors Association feared its watered-down residual provisions with respects to imports.

In short, the opposition which had been sleeping at the time of the Senate vote came alive—fighting. Its tactics called for delay beyond adjournment.

Suomela Promoted To New FAWS Post

Under Secretary of the In Clarence A. Davis announced th motion of Arnie J. Suomela, of land, Ore., from Assistant Direc the Fish and Wildlife Servic charge of fisheries, to a recentl ted post of Associate Director.

In his new capacity as Associa rector, Mr. Suomela will serve a eral deputy to Director John L. in directing the over-all activities Service including fisheries. The motion became effective on Ma

Federal Decree Forbids Salmon and Crab Deals

Machinery of the Federal Commission recently ground ou more consent decrees in applying eral court rulings that fishery ators, individually or in groups, not legally agree upon prices wi ganizations of independent fisher

Thirteen Puget Sound salmon ners and two Kodiak Island King packers have accepted decrees forbid them to negotiate with g of independent fishermen price which the fishermen are to receiv their products.

Legal rulings hold that such f men are in fact independent bus men and are not entitled to th emptions from the antitrust granted to labor unions, regardle what their organization may be na

A number of fishermen's orga tions have met this situation by be ing bona fide cooperative orga tions, which may so bargain; but lack means of enforcing their po granted to labor unions.

Californians Hold Posts On Research Committee

Joseph Mardesich, president o Franco - Italian Packing Com Terminal Island fish cannery, has appointed by the governor of fornia to the state's Marine Res Committee. Another Southern fornian on this committee is G Van Camp, president of the ca which sells Chicken of the Sea White Star seafood products.

Interior Secretary Seaton

● Appointment of Fred A. Seaton to succeed Douglas McKay as Secretary of the Interior developed almost no reaction within the American fishing industry. He appears to possess the respect of Congress, and to be very close in a personal and administrative way to The President.

With men of the caliber of Jo Farley and Arnie J. Suomela a head of the national fishery se the Industry appears to expect th new Secretary will rely upon then the program they have in motion

He has indicated that he favor mediate statehood for Alaska.

cliff Al Levy
nust have looked good for the fish in Central California, where Turnages the Meredith Fish Co. of Sacrand Levy the Washington Fish & Oyster Co. of San Francisco.

evy Returns Trip to Orient

Levy, manager, Washington Fish er Co. of Calif., San Francisco, his annual flying trip to Japan, Kong, and Manila, last month. company has been appointed rn California distributor for the oyster line produced by Allen trick Co., Inc., Reboth Beach, The oysters come in both insti- l and retail packages, frozen eaded. There is also an oyster em in the retail line.

apore Base Secured apan Tuna Fleet

n's long-range tuna vessels oper- nto the Indian Ocean will bene- m arrangements recently com- which will provide for them an ediate base of operations at ore.

er this contract, the C. F. Sharp ingapore, will act as fleet agent vide ship repairs, fuel, hospital ent and other facilities.

n Lays Limitations una Motherships

ch limit and other restrictions imposed on tuna mothership ions by the Japanese govern- n the spring. While this action ot unexpected in Japan, it came evidently to forestall any sweep- itch from salmon to tuna as re- the Soviet action to limit the catch.

ould be noted that Indian Ocean rship operations are except from strictions which apply only in uth Pacific east of 170° East ude.

rations in the tuna mothership re limited to those who were ac- uring the year from April 28, to April 27, 1953.

al catch quota of 15,068 tons is the region East of 170°.

herships must lie at least 800 al miles apart.

Domestic Tuna Landings Rise 60% in First 5 Months

● Spring slash of $2 per case in the price of canned tuna resulted in a reduction on the shelf price of certain advertised labels to as low as 23c for chunk in the Los Angeles area. Prices in the San Diego markets were a little above.

The cut in case price presumably followed the severe reduction in the tonnage price of Yellowfin, Skipjack and Bluefin, which occurred several months ago.

Coincidental with the drop in price of the case pack was the increased production by purse seiners and tuna clippers of tuna for the first six months of 1956 over a similar period in 1955 and 1954.

To the end of May, American tuna clippers and purse seiners had landed 62,885 tons of tuna in Southern California this year. On even date in 1955 the landings were 38,836 tons.

This is an increase of more than 60% in the domestic deliveries. Imports of foreign frozen tuna discharged in Southern California during the first five months of the year appear to have declined somewhat from the previous year. Reported five-months imports to Southern California were 18,846 tons, just under 30% of the domestic deliveries.

Two major canneries, as this issue of *PACIFIC FISHERMAN* went to press, were operating on what was termed a controlled production basis. In view of the increased tonnage of tuna, and the larger amount of Skipjack, during the first five months of 1956, cannery officials seemed to feel there was a need to "discipline" the amount of tuna delivered at peak seasons and to schedule vessels on the basis of potential tonnage.

Tuna purse seiners were continuing to work through the Fishermen's Cooperative; and bait boats through the American Tuna Boat Association. New contracts were negotiated by the Cooperative in January; through the Association in late April.

Currently the two major canneries on Terminal Island were working on different sailing schedules, which, apparently, on the contract agreements were different in specific details involving time in port tonnage capacity of individual boats, the time of unloading, and the percentage of species of tuna delivered.

The inventory of canned tuna in Southern California, as this issue of *PACIFIC FISHERMAN* went to press, was running a little over that for the same period of 1955.

As for import of tuna, as of May 26, 1956, approximately 19,000 tons, largely Yellowfin and Albacore, was almost even with tonnage for the similar period of 1955.

Tuna Mothership Works In Fiji Islands Region

First Japanese tuna mothership operation into the South Pacific this season was that of the *Ten-yo Maru*, a 3,700-tonner of the Taiyo fleet.

Accompanied by 26 long-line fishing boats of an average size of 160 tons, she expects to be on station in the Fiji Islands area for about three months.

In addition to her fishing vessels, she will be served by four transporters of about 1000 tons each.

Ten-yo Maru has a three-months target of 5,400 tons of Albacore, Yellowfin, Bigeye, swordfish and shark.

Biloxi Cans Tuna

Tuna canning on a token basis was reported from Biloxi, Miss., at the end of May. The DeJean Packing Co., a shrimp and oyster canning concern, early in June finished canning a parcel of tuna—said to be only about 1,000 cases, for Marine Sales & Service, Inc., Pascagoula.

The fish used was taken by the Fish and Wildlife Service exploratory vessel *Oregon* in the course of her test fishing; and by the long-liner *Millmar*, owned by Cecil W. Drake, former Southern California tuna clipper manager.

Japan Tuna Packing Steams-up in May

Although a start was made before the end of April, active tuna canning in Japan did not get fully under way until well along into May. This was due primarily to comparatively light early catches of Skipjack.

Much of Japan's tuna canning centers at Shimizu, where the canneries put up mandarin oranges from November until April, and tuna the remainder of the year.

Virtually all of the tuna was being canned in brine.

Heat of Fishery Frictio

Sustained Yield is a Duty Under Soviet-Japan Treaty

● Fisheries treaty signed between the U.S.S.R. and Japan, but not to come into force until a peace treaty between the two countries becomes effective, declares for "maintenance of the maximum sustained productivity of fisheries in the Northwestern Pacific" as a *"duty"* of both nations.

Its preamble says Japan and the Soviet Union have "a common interest in the development of fisheries on a rational basis in the Northwestern Pacific, and . . . mutual responsibilities regarding conditions of the fish species and . . . their effective utilization."

The convention goes on: "Maintenance of the maximum sustained productivity of the fisheries in the Northwestern Pacific is of common benefit to mankind and the two Signatory Powers . . . Each should assume the duty on a free and equal basis to plan for the preservation and increase of the . . . resources.

"It is highly desirable to promote and coordinate scientific research for the purpose of maintaining maximum sustained productivity in the fisheries."

● Treaty waters are specified as the *"entire waters* (excluding territorial waters) of the Northwestern Pacific Ocean, including the Japan Sea, the Sea of Okhotsk, and the *Bering Sea"*.

(Emphasis has been supplied by editor to point the apparent intent to control under this treaty activities of Japanese and Soviet nationals throughout the "entire waters" of the Bering Sea.)

● Japan and the Soviet Union bind themselves to apply to their fisheries measures of conservation and development specified in the Appendix to the treaty.

The Japan-Soviet commission is specifically charged with the duty of determining if a species of fish needs protection, and of determining the quota which may properly be taken of populations showing signs of poor condition. Where such a quota has been established, it becomes a duty of each government to license or certificate its vessels in such a manner as to limit the annual catch to the quota specified. (Comment: The treaty does not indicate how the quota is to be divided between the fleets of the two signatories.)

Authorized officials of either country may board the other's fishing vessels and, if he finds evidence of violations of the provisions of the treaty, may seize the vessel or any of its personnel deemed responsible.

Can Motherships Survive Under Far Eastern Treaty?

● What will be the future of Japanese ocean, mothership salmon canning operations under the annex to the fisheries treaty between the Soviet Union and Japan?

On the face of it, the treaty annex, as reported from Washington, would appear to mean destruction of the Japanese floating salmon cannery industry as we have known it, for Section 1, Paragraph d, says:

"Concerning mother-ship type fisheries, the annual catch (based on the gross weight of the fish) per ship shall not exceed 300 metric tons and 150 tons for fishing vessels and research vessels. Total catch of all the fishing vessels and research vessels belonging to one mothership shall not exceed the total catch stipulated for one mothership".

● In short, if this is interpreted correctly, it would mean that the amount of salmon which a mothership could handle annually from treaty waters would be limited to 300 tons.

Each fishing vessel could take half that amount.

It would appear, then, that this would force revision of the Japanese operation. It might mean development of ocean gillnet vessels with f facilities, which would catc freeze 150 tons in the course o son, operating much after the of tuna clippers; and perhaps to tuna fishing after the salmon

● Moreover, the first line of nex says: "Both signatories a regulate the catch" of salmon, all species.

Again, "(c) The total catch determined by the commission that the emphasis, supplied by makes a quota on the catch *mar*

Salmon fishing in treaty closes on August 10, each year.

The treaty limits the length which may be run by any hi fishing vessel; and specifies spa tween nets laid by different This spacing runs up to 12 kilo These regulations do not ap Japanese shore-based boats south of 48°.

Mesh size of gillnets must "b than 55 mm. in length from knot." As this approximate 2.25", it is believed that the m ment must refer to each side mesh, rather than to stretched m

Taking of small, immature is prohibited.

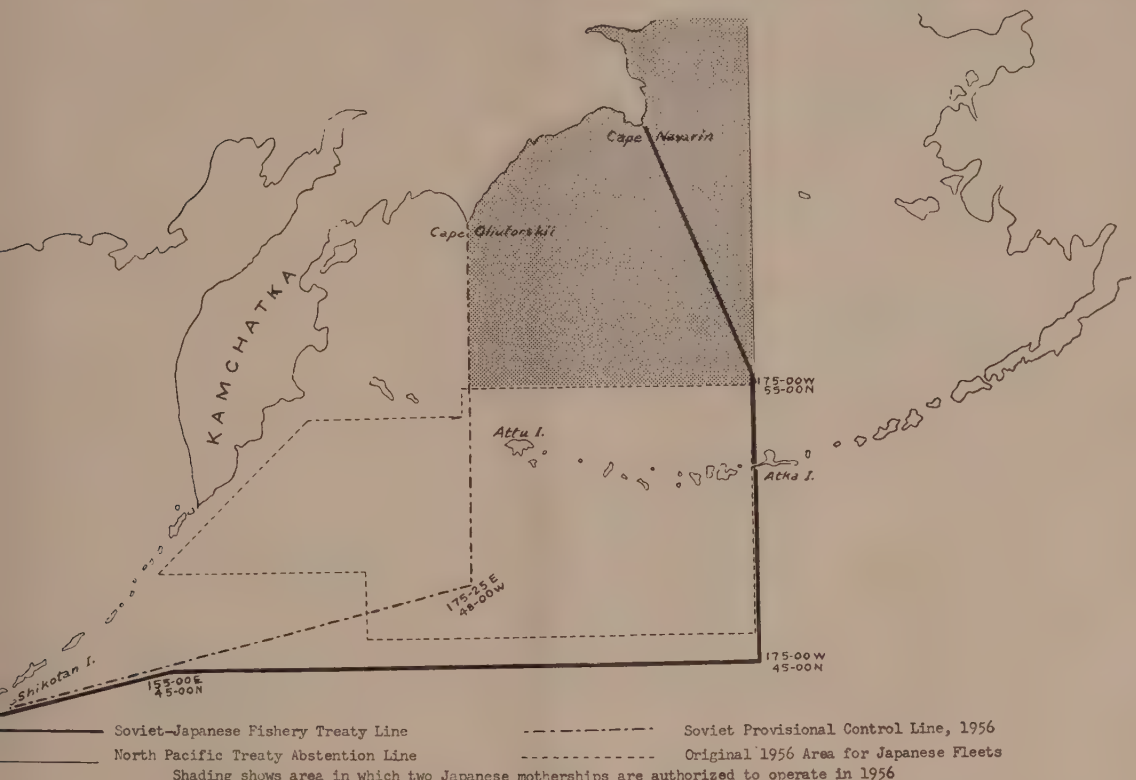
King crab females may caught; nor may small crabs le 20 cm. length of shell. Toler females and undersize crabs set by the commission. Wher tolerances are exceeded, areas be closed.

Japanese Fishery Lead Join in Treaty Talks

● The fisheries treaty betwee and the U.S.S.R. was negoti behalf of Japan by Ichiro Kon ister of Agriculture and For the Japanese cabinet, togeth Koto Matsudaira, ambassador ada.

Advisors representative of were three men who play im roles in the International No cific Fisheries Commission, K Nakabe, president of Taiyo K. K., and a member of the T Commission; Kyuhei Suzuki dent of Nippon Suisan K. K. former commissioner; Iwao vice president of the Japan Society, who was chairman of partite Commission during t 1955.

s Felt Around the World



ere are the 1956 Fishing les for Japanese Fleets

otiation of the fishery treaty be- the Soviet Union and Japan, with an understanding that dis- is looking toward a peace treaty n the two countries would be aken, served to release the Jap- high seas fishing fleet for 1956 ons on a modified basis.

se modifications were indicated stime as:

Okhotsk Sea operations of the se would be limited to *two* rships, instead of *seven,* as lly planned.

Of the five motherships barred he Okhotsk, two would be per- to operate in northwest Bering bove 55° north latitude and be- the North Pacific Treaty Ab- n Line and the line drawn by viet Union south from Cape rski. This area would extend 5° of longitude, between 170° 175° w. In the event that this rn area proves unproductive, the two vessels with their fishing fleets *might* be permitted to enter the "Aleutian Area" established by the Japanese.

3. The three remaining motherships originally scheduled for the Okhotsk will not operate on salmon in 1956; but their fleets of fishing vessels will be allocated among the 16 motherships active.

4. No "investigation vessels" will be dispatched to the Okhotsk Sea; and "investigation vessels" with the fleets in the North Pacific will suspend commercial fishing for salmon about the middle of June.

5. There will be no operation of long-line salmon fishing vessels or gear within the 1956 provision control area established by the U.S.S.R.

6. The Japanese catch within this control area is limited for 1956 to 65,000 mertic tons — estimated at 32,500,000 fish by the Russians and at 37,500,000 fish by the Japanese, whose calculations are based on intimate knowledge of the average size of ocean-caught salmon. This quantity will be allocated by the Japanese government between the motherships and the shore-based operations within the control area south of 48°.

Peruvian Salmon Souffle'

● Private Peruvian inquiry as to the reception which would be accorded a vessel under South American registry engaging in salmon fishing outside the three-mile limit along the coast of the United States and Canada created a May stir which by mid-June had subsided into whisperings in Washington, Ottawa and New Westminster.

The Peruvian government disclaimed knowledge of the proposed enterprise, or of its principals.

Practical fishermen doubted the economic feasability of the suggested operation, particularly as it probably would not be possible for the vessel to

There's plenty of fish in the sea. But, to br
them in at a profit, you need equipment
that's reliable and long lasting.

And so it is with netting. Take Adams
Best Netting, for instance. Here's nettin
that's made of the finest twine . . . twisted
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Seaside Supply Stores, Inc.
803 So. Palos Verdes Street
San Pedro, California

Seattle Marine & Fish Supply Co.
Pier 39, Foot of Pike
Seattle, Washington

her catch in the United States
ada.
tical legislators looked-up the
ons of the enabling act of the
t Treaty of 1937 between the United States and Canada; provisions which bar the markets and ports of the signatory countries to fish produced from treaty waters in contravention of that international agreement.

itish Recognize 12-Mile mit to Get Inside It

eration of heat through frictions
ernational fisheries is not con-
o the Pacific, and concern over
d Russian activity in ocean fish-
not limited to Japan.

British, long the foremost ad-
s of the narrow territorial seas,
ginning to feel that the Russians
rking a bit close to the British
es; and at the same time rejoice
ne issue of negotiations by which Great Britain becomes the first nation to be granted fishing rights inside the Soviet's 12-mile limit in the Barents Sea area.

It took nearly a year of negotiations, and some substantial concessions on the part of the British, to recover part of the position from which they were ousted in July, 1955.

To regain the privilege of fishing inside it, the British were obliged to recognize the 12-mile limit established by the Soviet.

"Expediency" is the term for it.

● While British diplomats were dealing with the Soviets in quest of their lost position in the Barents Sea, British fishermen were raising a cry against the "alarming numbers" of Russian trawlers "using such ruthless methods that the fish stocks of the Atlantic community are threatened".

The quotes are from the London *Daily Mail* of May 16, 1956.

The writer, Ralph Hewins, bitterly attacks Soviet Fisheries Minister Ishkov, saying:

"You will perceive that Minister Ishkov is a menace. He observes no conventions for preserving fish stocks of whale stocks. He has no respect for small nations' territorial waters . . . He manhandles fishermen of other nations out of their traditional fishing grounds and offers no redress."

itter Alaskan Weather Slows arly Salmon Canning Activity

ather held early salmon opera-
in irons all the way from Attu
Copper River Flats this spring,
ell in June.
at might be the effect on the fish
nd fishing of the extraordinarily
and late ice and snow condi-
was anybody's guess. Some say
d; others think it's unimportant;
say it's beneficial.
at the extremity of the Aleu-
and along The Chain to the east-
of Attu and Kiska, the research
s working on the scientific pro-
undertaken by the American Sec-
f the International North Pacific
ies Commission met weather of
rous violence, which greatly han-
ped their investigations.

e lake systems in which the Bris-
y Reds are reared were reported
heavily iced well into June; and
ondition was reported for lakes
east as Cordova, where the snow
was heavier at the start of fish-
an it had been for many years.
e Copper River season was run-
toward its end and as this issue
went to press—with a light pack
im prospects.
that time operators reported
sharply below 1955 to even
and very far short of the excel-
954 results.

On the other hand, the pack to presstime was very closely in line with that of the parent year 1951—assuming a five-year cycle, which seems probable on Copper River.

Weather on the Copper River Flats made fishing impossible during the early days of the season, and when it moderated the catch was slack until the end of the first week in June, when there was a nice two-day spurt from June 7 to 9. Reopening the following week found fishing flat again, and it appeared that the run must have entered the stream and passed above the fishery during the week-end closure.

● *JAPANESE* fishing results had not been reported in a general way at press-time. It appeared that during the early weeks of operation the catch-per-chackle was averaging somewhat better than the year before, the improvement being on the order of 10%. Where fleet was working the water temperature was reported as 1 to 1.5° Centigrade higher than in 1955.

Location of the fleet had not been stated plainly, but it was anticipated that operations would center in the 15° band between the North Pacific Abstention Line and the U. S. S. R. 1956 Provisional Control Line just as long as results there were economically favorable.

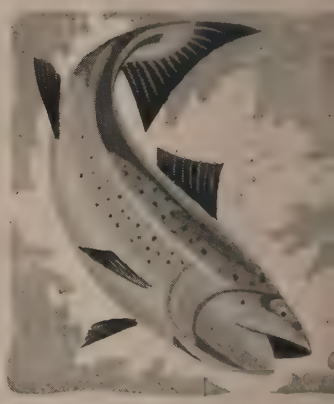
The Japanese were believed to seek a catch of not less than 20,000,000 fish from waters outside the Soviet Union's Provisional Line, within which they are to be permitted to take 65,000 metric tons of salmon this season, figured by the Japanese themselves at about 37,500,000 fish of the size normally taken by high seas operations of this sort. No fishing is to be permitted within 40 miles of territorial waters, which in the case of the U. S. S. R. are believed to be considered 12 miles from the coast.

Pink Salmon Treaty Talks Expected in September

Reports current late in June indicated the probability that negotiations dealing with a pink salmon treaty between the United States and Canada will be undertaken early in the fall, probably in September.

While no official indications have been given, there is reason to believe that the matter will be approached from the standpoint of amendment of the existing Sockeye treaty in order to extend the authority of the Sockeye commission to cover study—and perhaps ultimate regulation of Pink salmon.

CANNERS' CORNER



Q. **Who originated the salmon filler?**

A. American Can Company scientists and engineers! This important development opened the way for the first high-speed salmon canning lines during the 1930's.

Q. **How has Canco aided canners of shrimp?**

A. In many ways. For example, it was American Can Company that developed a suitable method for packaging and freezing Alaskan shrimp.

Q. **Has Canco ever designed a can to meet a special need of fish canners?**

A. Many times! Although we have not yet been called upon to produce a can like the one illustrated, Canco does offer a wide variety of can sizes and types suitable for canning virtually any sea food product.

AMERICAN CAN COMPANY CANCO

NEW YORK
CHICAGO
SAN FRANCISCO

mbia's May Salmon ls Encouraging

stantial measure of encourage- was taken by Columbia River nen and operators from the con- manifest by the May run of ok salmon in that great stream. catch was *slightly* below that of –the best in a good many years close observers and students of ments feel that the 1956 *run* ly exceeded that of the previous when heavy catches were made vicinity of Bonneville. High resulting from the low snow and exceptional run-off inter- with May fishing this year; but less of this difficulty the yield ted "above average."

F. Repanich Again ds Fishermen's Packing

kholders of the Fishermen's g Corporation, whose cannery acortes, Wash., is rated as the on Puget Sound, re-elected their of directors at the company's l meeting in May.

F. Repanich was again elected ent. Other directors and officers Peter Milos, Tacoma, first vice ent; Andrew Vitalich, Seattle, l vice president; John N. Plan- Anacortes, general manager, sec- and assistant treasurer; Frank tt Jr., Everett, treasurer; George ich, Tacoma, assistant secretary; Martinis Sr., Everett, Paul Serka, na, Nick Vitaljic, Bellingham, Zitkovich, Seattle, and Joe Mar- ch, Tacoma, directors; the latter eding Matt Vodanovich, Tacoma, id not seek reelection.

l Curing Held Free Manufacturing Tax

e mild cured salmon business won fight in Seattle court late this when the city sought to impose anufacturers tax on this branch salmon business.

e defense, with Robert Dignon rthern Products Corporation and . Eardley of Eardley Fisheries ing, convinced the judge that the on of mild curing was an inter- te step and could not be con- d manufacturing.

e court accepted this view, ruling nild curing was in fact preserva- and entitled to the same treat- as freezing or icing fish for ent.

co-Italian Loan

m the Small Business Admin- on, Washington, D. C., a loan of 000 has been made to the Franco- n Packing Co., Terminal Island.

How Selling and Science Give Cured Fish a New Day

● *SMOKED and CURED* fish have a brighter, broader future in the American market than ever in the past, Aaron Gilman of Vita Food Products, Inc., and Louis Vitale of the Los Angeles Smoking & Curing Co. told the National Fisheries Institute convention.

Why and how?

Well, because merchandisers have found that the broad demand lies in the way of mildness and uniformity; because advances in packaging have made it possible to put cured fish into the chilled food cabinets of the large chains and local supers, and that's the home of volume sales; and because new technology in smoking, pasteurizing and protecting make it possible to tap a potential never within reach before.

Mr. Gilman emphasized the ultimate benefits which might be expected from the use of antibiotics and pasteurization by means of irradiation — although neither has yet made contribution to the industry's current growth. Just how these two developments can be applied to the cured fish business is not yet clear, although under careful scientific study.

He concluded saying: "Our standards for our products, our specifications for our raw materials, rise constantly; and our volume of business with them."

"We accomplish today what a few years ago would have been unbelievable," Mr. Vitale told the N.F.I. "With science and technology, we put out a better product, designed for the appetite of today, and put before the consumer in an attractive package which protects as well as merchandises.

Louis Vitale, Los Angeles Smoking & Curing Co., and **Aaron Gilman,** Vita Food Products, Inc.

"The secret is mildness; and that requires close technical control, such as our electro-static smoking machine. The package must maintain quality while giving protection to the product and other goods sold with it; and at the same time must stimulate sales by its attractiveness and display.

"Packaging improvement has come a long way in a few years, and it continues, with no apparent end to the possibilities in the future of this field."

● ATTENDANCE at the Miami Beach convention of the National Fisheries Institute was the largest ever recorded for the organization.

By actual count, the full registrations numbered 725, with persons served at the Congressional Luncheon numbering 926.

Six-Way Consolidation Is Set for Puget Sound

Facing the unattractive prospect of the low-cycle of the Sockeye run, with fishing cut to a minimum, plus the off-year in Pinks, six Puget Sound salmon canning companies have adopted a consolidation program which they hope will make in-the-black operations possible.

The Alaska Packers Association plant at Semiahmoo; the Bellingham plants of Columbia River Packers Association, Burk Packing Co., and the Pacific American Fisheries; and the Anacortes canneries of the Sebastian-Stuart Fish Co., and Nakat Packing Corporation will consolidate their pick-up and delivery activities, with the southern fish packed at the Sebastian cannery and those from the northerly grounds at A.P.A.

K-D on Cook Inlet

Kayler-Dahl Fish Co., operating combination canneries and cold storage plants at Petersburg, Alaska, and Seattle, has taken a position of part ownership in the Berman Packing Co., headed by O. R. Bertoson, with a one-line cannery and a cold storage division at Ninilchik, in the Cook Inlet district of Alaska.

Japanese Salmon Men Study American Packs

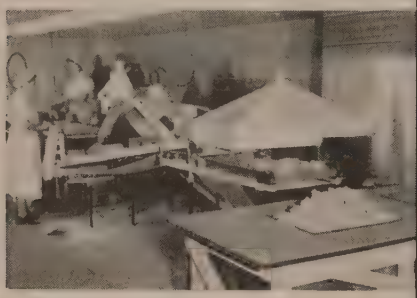
Cutting, inspection and appraisal of a considerable number of samples of United States and Canadian canned salmon took place in Tokyo this spring, with Japanese salmon canning specialists showing the sharpest interest.

The samples were collected and the cutting presented by Daiichi Bussan K.K., one of the leading traders.

No. 1 for Lake Erie Canadian Fleets to

Placing a clean twine. McLean fishermen tie and lower repaired crib net, after which they will set the tunnel. McLean pond-net boats are all-steel, 28 to 32 feet long, built by Canadian boatbuilders Russell-Hipwell, Gamble Shipyards and Powell Shipyards.

40-foot trap net boat uses powered net lifter, on far side of boat, to lift nets. Wheatley fisheries produce fish by means of pond-netting, gillnetting and trap-netting.



Processing for quick-frozen market. At Omstead Fisheries, fish are cleaned, boned, compressed and sectioned. Here attendants check "fish sticks" before passing them along to breading machine and deep-fat cooker.

A Typical Chrysler Engine installation. Darrell (left) and Harvey Getty show us the Chrysler Crown Marine Engine, equipped with 2.56 to 1 reduction gear, which has powered this 32-foot pond net boat since 1944.

Chrysler Power helps Wheatley, Ont fisheries produce more fish at less

Getty – McLean – Omstead – each is a well-known, respected among Lake Erie commercial fishermen. Every season these W Ontario fisheries produce about three million pounds of fish – w pickerel, perch, bass, smelt and sturgeon. Omstead also proces for the quick-frozen market. Chrysler Aces, Crowns and Imp Special Engines power boats of all three fisheries.

Harvey Getty (Harvey Getty & Sons Ltd.), Murray McLean (M Bros. Fisheries) and L. R. Omstead (Omstead Fisheries Ltd.) amazing day-in, day-out performance and economy. Chrysler put in as many as *ten* nine-month seasons with no more t occasional valve grind.

If "down-time" is costing *you* money, it's time you seriously c a change to Chrysler Marine Engines – your No. 1 choice for p ance, economy and dependability. See a Chrysler Marine Engine or write:

Dept. 157 Marine Engine Division, Chrysler Corporation, Trenton, Mi

CHRYSLE

America's No. 1 Marine Engine

MARINE ENGINE DIVISION • CHRYSLER CORPOR

PACIFIC Fisherman's NEWS

JULY
1956

ıy-in-Port Plans Seek ıbility in Tuna Fleet ring Heavy Production

erican tuna deliveries to South nia exceeded 260 trips, includ- bacore boats, in the first five s of the year, with deliveries g 60% ahead of 1955 in tons . Last year the boats were being l for weeks before they could ge. Only fish actually landed l into the five-months figures 54.

ers for tuna at the end of May oing better than the tuna clip- vith a run of Bluefin reported pe San Lucas, Baja, California. aps because fishing was good nage of tuna was up over 1955, the major canneries on Term- land in late May entered into ements with their boats to cur- oduction on a temporary basis. n cannery has its own method ntrolling" production and work- vessels on a basis of stay-at- time limits and tonnage capac- r example, one boat had an ar- nent whereby a boat of 100 tons remain in port for 28 days after g with a load; and each vessel ne or more tons over the 100- sis would be required to remain for each ton over the 100-ton

Repovich, manager of the ercial Fishermen's Association. early June said that Bill Ferrar wns the *Show Boat,* a salmon and albacore troller of Tacoma, has been elected president of the Federated Fishermen's Association, Inc., and that the halibut fishermen have joined the producers' association.

Also, it was announced by Mr. Repovich that the California Association of small boat owners had taken over the operation of the Union ice dock at Terminal Island. Several months ago, the Association acquired the management of the Union Oil dock on Terminal Island.

On June 2 the *Elsinore* was launched at San Diego by National Steel & Shipbuilding Corp. Mrs. Thomas H. Kuchel was matron of honor and John M. Murphy, master of ceremonies.

This vessel is sister ship to the series built by National Steel, including the *Missouri, Independence, Westport.*

"S.S. Martiri" Sold

The well known San Francisco trawler *S. S. Martiri,* owned and operated by Sam De Gennaro and Mile Sciancolepore, San Francisco, has been sold to the F. Alioto Co., San Francisco, and will fish for the F. Alioto Fish Co. of that city.

The sale was made through Dan Bohne & Son, fishing industry factors and ship brokers, Fishermen's Wharf, San Francisco. Mike Sciancolepore continues as skipper of the vessel with the same crew.

"Sea Rose" Lost In Bitter Fight

Down 170 fathoms in Georgia Strait lies Pete Scarponi's *Sea Rose,* 64' Gig Harbor seiner.

She sank there early in June after holing her hull on an "unidentified submerged object." They made a grim fight to save her, but it was lost when the lines which bound the sinking craft to the 60' *Chilkoot* parted.

No one was lost. With Capt. Scarponi were Jack Reynolds, B. L. McDonald, Vincent Naterlin, Crist Scarponi, John Scarponi, Jim Grecstad, E. M. Rouse and John Rosich, all of Gig Harbor, Wash.

They were near Nanaimo, bound for Alaska to fish herring, when they struck something in the darkness. It tore a big hole in the hull and in-flowing water soon had the engine stopped. The *Chilkoot* responded to flashlight signals and took the people aboard from the seine skiff and put lines aboard the *Sea Rose.* Every effort was made to get the craft into shallow water, but the lines failed before they made it.

Collision in Fog Sinks Astoria Troller

The 41-foot salmon troller *Thorwald,* owned and operated by Rudy Lovvold of Astoria, Ore., was rammed and sunk in dense fog by the Cal-Mar Steamship Company freighter *Flomar.*

Mr. Lovvold, who was fishing alone, was picked up by the freighter. He was uninjured.

Wharf for or Fisheries

bor Fisheries, Fishermen's San Francisco, has relinquished ith Bros. Wharf at Bodega Bay, and has leased another wharf north end of town, according to Alioto, partner in Harbor Fish- Vince Fradella, partner in Har- sheries, will supervise operations ega Bay.

Fishery Officer Dies

Captain James Boyd, 75, a former Canadian department of fisheries supervisor and well known among fishermen in Northern British Columbia, died recently at his home in Vancouver. He joined the fisheries department in 1912 soon after going to Canada from his native Scotland and retired from his post as supervisor at Prince Rupert in 1945.

Repairs for "Corsair" Following Grounding

The tuna clipper *Corsair,* which went aground on Macapule Island in the Gulf of California was towed to San Diego for repairs by the Star and Crescent tug *San Diegan.*

The boat had about 180 tons of tuna aboard which was unloaded at the Van Camp cannery before the boat went into the shipyard for repairs.

Standard Engineer's Field Report

CASE HISTORY
PRODUCT RPM Delo Marine O
FIRM Puget Sound Tug & Barge Seattle, Wash

"Practically no wear" on heavy-duty engi after 51 months tough service

"IT'S THE CLEANEST TWO-CYCLE ENGINE I'VE SEEN," said Port Engineer Tom Davidson, when he inspected the MV Wando's 1800 HP Fairbanks-Morse diesel after four years of rugged work for Puget Sound Tug & Barge Company. The engine used RPM DELO Lubricating Oil since its purchase from war surplus in 1950.

Mr. Davidson reported there were "No clogged lands or stuck rings, practically no ring, liner, bearing wear or carbon deposits". This 10-cylinder diesel was so clean, original paint was still visible on case interior in spite of 5,056 logged hours, many of them in extended ocean voyages. The Wando once trav from Seattle to Baltimore, picked up a large fe and towed it back to the Pacific Northwest.

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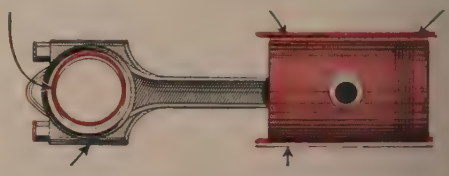

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STANDARD OIL COMPANY OF CALIFORNIA

Pacific Fisherman's NEWS

y 1956 Volume 54 Number 8

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3-Way Troll Salmon Price Split Wins General O.K.

● Three-way size split of red troll Kings on the Seattle salmon exchanges was rated a constructive move and "a step in the right direction" by the industry generally after its first month of operation.

Effective May 15, the new rule provided that red Kings should be sold in three size grades: Over 12 lbs.; 8 to 12 lbs.; under 8 lbs., all dressed heads on.

Consensus of the trollers, the exchanges and the mild cure trade after a month of operation at the new breaking points was that they produced better average prices for the fishermen and a more rational cost situation for the operator.

In 1955 the price break at 10 lbs. resulted in the curing of a lot of fish down to that limit. When a buyer paid top price for a fish in the 10-11-lb. range he tended to feel that the fish had to be mild cured. In actual practice, the smokers just didn't want such small fish—and certainly not at prices comparable with those of larger size.

The three-way split, then, has brought a price break about 12 lbs., where it has been for years; while the fisherman also is given a chance at the intermediate pricing accorded the 8-to-12-lb. fish, prime for freezing.

● Troll fishing in the seas tributary to the Seattle market was rated *POOR* to mid-June. Forty-Mile was the only producing area of consequence at that time and fishing just wasn't good. Prices were high, but that didn't make up for the poor catch.

The fleet reported that there had been Silvers of good size—24 to 25" —running in quantities off the Cape for a good part of June, but their retention was illegal before June 15.

Bert Johnston, manager of the Fishermen's Cooperative Association, reported that in its first year of application the one-month shortening of the King salmon trolling season in Oregon and Washington had worked a severe hardship on the trollers, particularly along the Washington coast. Without this early fishing, operations out of Grays Harbor were cut severely, and the concerns maintaining buying facilities along that section of the coast had taken sharp losses.

Net-Fouling Slime Research Study Launched

Participation of the Crown Zellerbach Corporation in study of the net-fouling slime which occurs in the Columbia River below pulp mills peaked recently when the company announced it had secured the services of Dr. Herman R. Amberg, a nationally known expert on problems relating to industrial wastes.

The company research team will include several other scientists, working with state scientists in an effort to develop means of eliminating the problem of slime growth which affects fishing nets and their efficiency.

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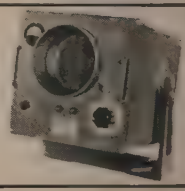

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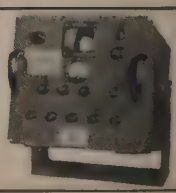

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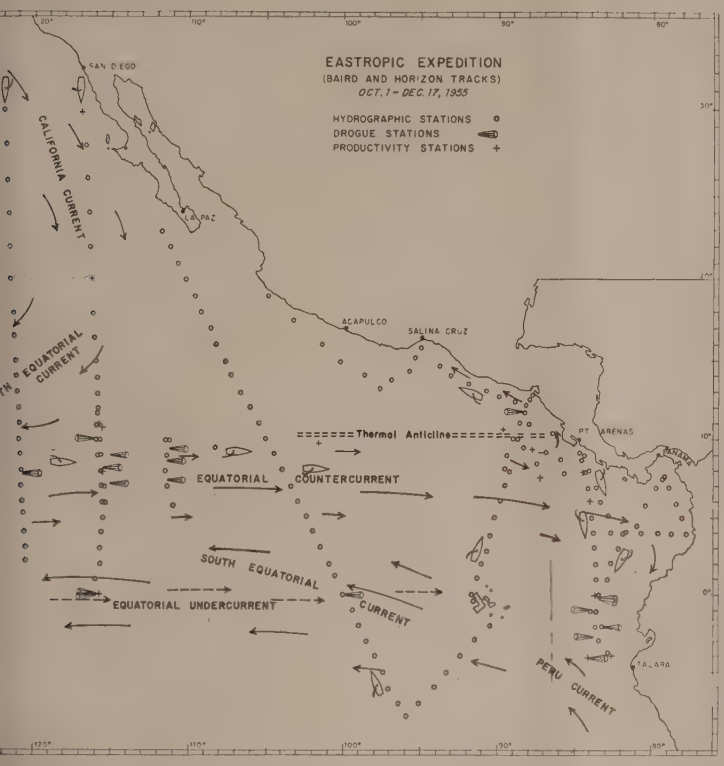
ASTROPIC EXPEDITION



hat it Seeks, and Where it Fits to Practical Industrial Fishing

By TOWNSEND CROMWELL

uring the fall of 1955, five re- h vessels operated simultaneously e eastern tropical Pacific. They measuring ocean currents, the ical fertility of the water, and the dance of small plants and animal ton which are the basic source of for all the larger marine animals, ding tunas. This effort has con- ed to our understanding of the resources in this part of the Pa- ocean.

presentatives of the tuna industry scientists attending the Fifth An- Tuna Conference at La Jolla in mber of 1954, agreed that such es should be made. Personnel of Inter-American Typical Tuna mission, together with Scripps nographers who were especially sted in the tropics, planned that vessels, the *Baird* and *Horizon* would go south from San Diego to the equator and then in toward the coast, concentrating their measurements in areas of special interest including some well known tuna grounds. The Honolulu branch of the U. S. Fish and Wildlife Service planned to investigate the equatorial currents aboard the *Smith* during the same period, concentrating on the ocean to the west of the Scripps operation.

The California Fish and Game vessel *Scofield* fished longline gear in areas where the findings of the other vessels would help to explain their catches. Peru sent the naval vessel *Bondy* to work from the area between Galapagos and the mainland southward into the Peru Current. Each agency had its own particular interests but by getting data from the same and adjacent ocean regions simultaneously, the inter-relationships among the physics, chemistry and biology can be studied, and explanations for sterile and productive areas sought. This article is concerned mostly with Scripps' part in the work, and the area studied by the two Scripps' vessels is shown in Figure 1.

● It is well known that the ocean is not uniformly productive. In fact, the greater part of the oceans does not support fish in quantities great enough to make commercial fishing worthwhile. Part a. of Figure 2 is an attempt to show why this is so. The drawing illustrates temperature conditions as they are throughout most of the temperate and tropical ocean regions of the world. There is a warm "surface layer" and, just beneath, the "thermocline", a layer through which the temperature decreases rapidly. Below this, the temperature decreases slowly, through the deeper water and all the way to the bottom. There is an abundant supply of nutrients; phosphat, nitrate and the rarer trace elements essential to plant growth, in the thermocline and deep water. But sunlight does not penetrate these layers in sufficient strength for plant growth. On the other hand, there is plenty of sunlight near the sea surface, but lack of nutrients. The surface water is old in the sense that it has been at the surface a long time and plants have used up the nutrients to the extent that their own growth is limited. Plants and animals exist, but not in quantity. Unless the rich water is brought up to renew the sun-lighted zone, there is little biological production. In those places where a mechanism of renewal does exist, plankton thrive and so do fish because they have a source of food. Regions where there is upwelling, vertical mixing, or a thermal anticline, can be productive, and each of

Mr. Cromwell is an oceanographer on the staff of the Inter-American Tropical Tuna Commission.

Widely known throughout the Northwest, the Mobil marine station of E. W. Hendrickson & Son at Warrenton, Ore., is a favorite service stop for scores of crab, salmon and sport fishing boats sailing the Columbia River bar.

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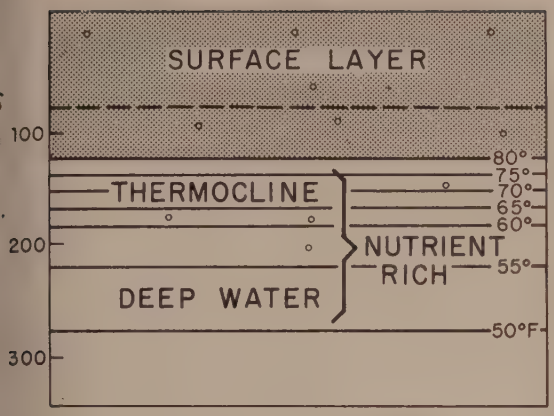
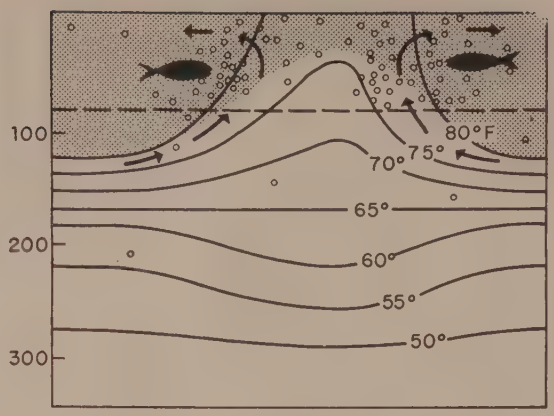


a. STERILE OR BARREN



b. UPWELLING

1. 2, (a) shows three major layers in the tropical and temperate ean, with the surface layer shaded, then the thermocline and nutrient ep water. Dashed line indicates sunlight penetration. Plankton, shown by small circles, is scarce.

(b) demonstrates how upwelling carries nutrient waters into the sunlight zone, with resultant multiplication of plankton, the first link in the chain of fish food. As time is required, heaviest food concentration is down-current from upwelling.

ese three situations was studied on e expedition.

Upwelling occurs near the Galagos Island and westward along the uator for several thousands of miles. this equatorial band, water is imled westward by the southeast des. But the earth's rotation deflects s westward moving surface water rthward and southward, away from equator. Cool, nutrient-rich water nes up from below, as drawn in gure 2, b., to replace that driven ay, and this cool water is produc-. Upwelling occurs also along the st of Peru within the Peru Current ich then turns westward toward Galgos, and this brings up a question, yet unanswered. Do the tunas, ndant in Galapagos waters, depend feed developed in locally upwelled er or do they depend ultimately water that upwelled off distant u? Data obtained on the *Baird* and *rizon* will be studied in conjuncwith that obtained close to the nland by the *Bondy* and farther he west by the *Smith,* in the hope of overing the answer.

urthermore, it is known that a ow, strong current flows eastward g the equator, submerged beneath tward surface flow. This deeper ent, the Equatorial Undercurrent, utrient-rich. It was found at two nts west of Galapagos (See Fig. 1) tracking floats attached by fine ic wire to parachutes at various hs. This current did not exist at the torial station between Galapagos the mainland. The undercurrent discovered only recently and its ficance to the behavior of tuna, y, is not known.

he tuna off Costa Rica live in a rmal anticline", a place where the thermocline is elevated to a position close to the sea surface, where sunlight can reach it. As shown in Figure 2, c., the thermocline is "humped up" in the shape of a dome or ridge. It can't be detected by surface instruments because there is no continuing motion upward into the surface layer as there is in upwelling. The anticline just sits there, like a hill. Unlike a hill, however, it may move around and change shape, and the water composing it can be renewed by flow and mixing through it. This flow assures a continuing nutrient supply, in a lighted zone, for the phytoplankton to grow in. Measurements on *Eastropic* showed that large amounts of phytoplankton are produced in this region. The anticline extends westward from Costa Rica along roughly 10°N. Clippterton Island lies in it, and this may be one reason for the large tuna catches often made there.

A third situation which enriches the upper, lighted layer of the sea was studied, somewhat by accident, during *Eastropic*. The situation was a gale in the Gulf of Tehuantepec. The first station in the Gulf was occupied in a dead calm, but within a few hours a gale of sustained velocity of 40-50 knot had set in. The surface temperature dropped considerably during the gale, indicating that nutrient-rich waters were being mixed upward from the thermocline. This is a process that probably goes on to a small degree continually in the ocean, but a gale seems to result in a major "charge" of nutrients into the surface layer. Subsequently, phytoplankton, zooplankton and small animals for tuna forage, can develop in this water. In a place like Tehuantepec, where gales occur frequently, this mixing process may be of especial importance, by supporting an unusually large biological stock. One may curse a Tehuantepec Gale when he is running through it with a load of fish, but this same gale may be responsible for a future load. Maybe this is the first good word ever said for a Tehuantepecer.

There are other situations that cause tuna to congregate. The best known of these is a submarine bank, but it must be admitted that a completely convincing explanation for tuna abundance near banks has not been developed.

● At each of the hydrographic survey stations, shown in Figure 1 as circles, measurements were made of surface current and, from the sea surface down to 1000 meters, of temperature, salinity, dissolved oxygen, and inorganic phosphate. These measurements determine the locations of currents and of features like upwelling and the anticline. Zooplankton, also, was measured at each of these stations and the size of the crops was found to vary a great deal and in a manner consistant with the oceanography. High crops were found in the upwelling near the equator and in the termal anticline. The highest plankton catches were made in the Peru Current, near its nothern boundary. In this same region the California Fish and Game vessel *Scofield* made its highest longline catch, primarily of bigeye tuna.

The *Eastropic* expedition work was not confined entirely to these studies of direct bearing on fertility and productivity of the ocean. An intensive study of the Equatorial Countercurrent was made. The geomagnetic electrokinetograph (GEK) measured the surface current. Parachute drogues measured the current at various depths below the surface. The two Scripps ships worked together in this, crossing and recrossing the current for many days to learn

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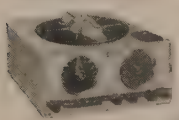

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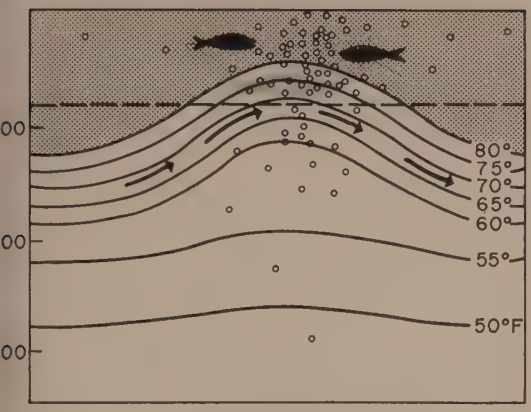
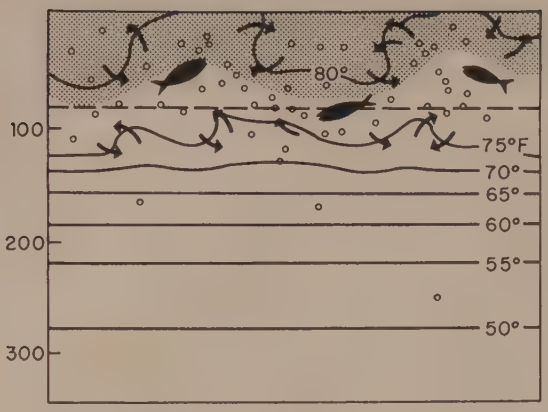


c. THERMAL ANTICLINE



d. VERTICAL MIXING (BY GALES)

2, (c) thermocline arches upward in an anticline or hump, as nguished from an actual upwelling, where the surface layer lly is disrupted. Some of the rich waters from the depths are elevated into the growth zone due to the light of the sun.

(d) as result of exceptionally strong wind, waters of anticline and lighted surface are mixed, enriching the sunlighted plankton-breeding layer. Again, time is required for growth of the food chain, so fish congregation may come weeks after the storm.

t its short term variations. The ent was found to accelerate and lerate from one day to the next. etimes the surface water was mov- nost rapidly and sometimes a layer w the surface was fastest. During two weeks devoted to its study, it ed from a 2-knot current to one of action of a knot. Along the vessel going east at about 8°N, the ntercurrent stopped completely e, or else swung to the north or h of the vessel.

study like this one of the Counter- ent and that of the Undercurrent to our knowledge of the currents ne tropics, knowledge which is es- al to eventual understanding of distribution of the tuna stocks.

me is consumed in running from area of interest to the next. It is rating to have to do this, but two ortant things can be accomplished, at the steaming time is not wasted. he first place, it is necessary to ribe the extent of the features e interested in. That upwelling oc- , for example, is important to know, but over how large an area it occurs, is also important. If waters upwell over an area of a few square miles, not as large a biological community can be supported as if the upwelling occurs over thousands of square miles. While running into and out of such an area, we get an idea of how large it is.

● Another value of the long runs is the opportunity to make measurements in the barren as well as the rich areas. This must be done to find reasons for the barrenness or richness. What is the difference between two areas, one productive and the other sterile? What currents or parts of currents are responsible? Some partial answers have been mentioned in terms of upwelling, anticlines and mixing. More complete answers are needed. Only by understanding the important features of the tuna's environment can we hope to understand, and eventually predict, the variations in their abundance due to such features.

A complete report of Sripps' participation in *Eastropic* would discuss numerous additional measurements, but only a few will be mentioned here. Bottom samples were obtained by coring off the Gulf of Fonseca. Prehistoric water conditions will be revealed by these cores. Water samples from 3000 meters will be analysed for content of radioactive carbon. It may be possible to tell, from these analyses, how long ago this deep water was at the surface and something of the rate of the deep circulation may be learned in this way. The distribution of particles suspended in the sea and of carbon dioxide in the atmosphere were measured.

Just what will be learned from some of these measurements is not really known. Unfortunately, nothing at all will be learned from some of them, except not to make the same mistake again. But this is no reason to abandon attempts to make new measurements. It has been said truly that we know less about the water beneath the sea surface than we do of the face of the moon. Efforts like *Eastropic* expedition, we hope, will remedy this situation.

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ut men were asking themselves
e vessels of the longline fleet be-
o come back from their second
of the season.
nat prompted it?
or fishing.
r the second successive year fish-
vas below what had come to be
nized as the norm. Why? Was it
ner?
some slight degree, probably; but
observers were constrained to
ve that the reason lay in reduced
ers of halibut available to the
y during May and early June.
would take time, plus very care-
tudy and analysis of the data, to
a conclusion; but by mid-year
elements in the industry were
g seriously of the possibility that
ght be necessary for the Interna-
l Halibut Commission to reduce
uota until the trend of abundance
again turned upward.
t some will point out that there
been no increase in the halibut
quota for a number of years.
ue; but under the "split season"
isions of the present treaty there
been substantial catches outside the quota limits. In short, the aggregate take has been greater.

In 1954, the first of the actual "split seasons", there was extraordinarily good fishing. Was that due to the good weather? Or was it just "skimming the cream" of unfinished stocks? Or was the actual, stable abundance greater?

Came 1955, with fishing poor and the catch down sharply—seemingly in confirmation of the theory that 1954 had "skimmed the cream".

Now early experience in 1956 add further evidence in support of this thinking, and men ask:

Is it a warning signal?

● *HALIBUT MARKET* — May and June halibut prices were good, although this does not mean the fishermen did not complain; and there was a marked difference between the rail terminals and the freezing ports.

At Seattle after the first flurry of bidding, mediums settled to a bit above 25c, while No. 2 brought 19 to 20c, nearer the latter figure if there were many large in the trip.

Resale prices brought a lot of comment, and some bitterness; for there were open selling offers at virtually the same figures paid the boats. Causes of this condition were obscured in business strategy, for certainly they did not lie in necessity.

● *FLOW TO MARKET*—Arrivals of halibut at most markets during the early part of the season were evenly-spaced by the lay-up program developed by the fleet in its effort to support prices through rationalizing of the rate of delivery.

To time of writing no destructive gluts had developed, nor had there been periods of scarcity with their wildly fluctuating prices.

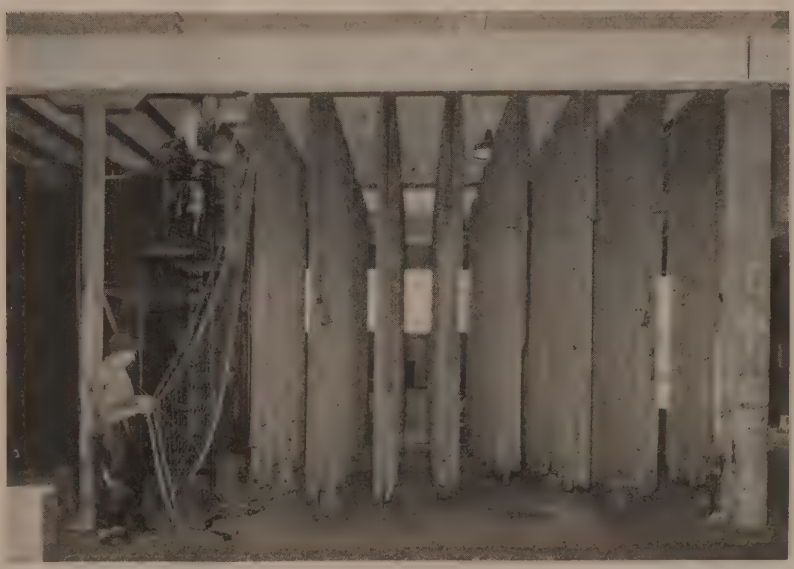
The seven-day stay-in-port between trips in actual effect extends the time between trips by only about four days, a vessel normally taking three days in which to sell, discharge, outfit and get away again.

However, this spread the deliveries in the early part of the season in a way which paid-off nicely.

One effect of the stay-in-port of course was to divert an unusually large percentage of the fleet to Vancouver and Seattle. When they have to stay in port for a full week the fishermen just naturally want to go home; and the buying prices in the big towns have been such as to add encouragement.

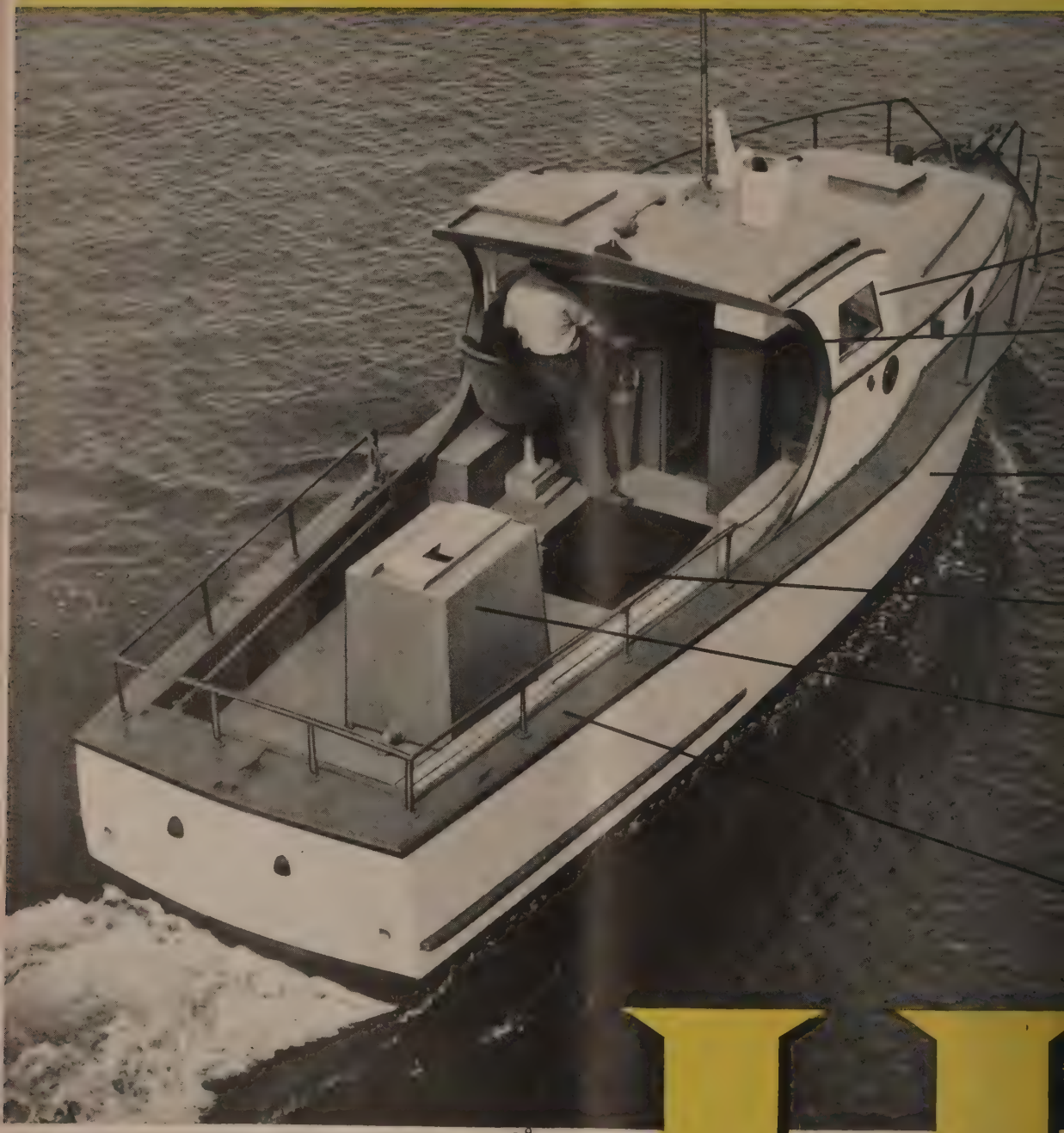
Treating to Order
w Service of PMS

et treating facilities laid-out and
pped on the basis of many years
rience in this field of service to
rmen, and particularly planned to
is work to the net-owners' indi-
l specifications of materials and
ods, have been put into operation
Pacific Marine Supply Co. at its
Washington Canal dock in Bal-
Seattle.
is is a custom net-treating sta-
and equipped to meet the require-
s of any fisherman. He can have
net treated with any material he
rs, and in exactly the manner
h he prefers. With the kind of
PMS has installed in Ballard,
reating can be made a custom
ess in the fullest meaning—just
ly what the customer wants.
oreover, capacity is such that the
can be gotten out as quickly as
nsistent with the best practice. The
pany features treatment with Pa-
Net Dip, Cudex, Netlife, and
yl, but is ready to use any ma-
l the customer prefers.
s an added service, the Pacific
ne Supply's Ballard branch carries ready-tarred netting in a variety of twine and mesh sizes, which can be supplied immediately in emergency resulting from loss or extensive damage to a net during the fishing season. When a fishermen has encountered such a loss, immediate replacement such as this service makes possible could mean the difference between profit and loss for the entire season.



Controlled Drying under cover and out of the sun is a feature of the Pacific Marine Supply Co. net-treating plant at its Ballard dock, Seattle. Here netting of any fiber can be treated with material and by method exactly to the customer's specifications. Planned and equipped on the basis of many years of experience with fishing nets, the plant is regarded as a model of its kind.

1001 USES FO



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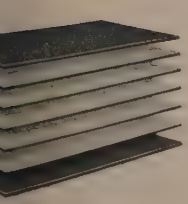

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SCOPE and SOUNDER

Monthly digest of present-day pioneering methods and equipment in world fisheries.

By PETRALE

Midwater Trawls Come Under Concentrated "Cobb" Research

Potential or possibilities of mid-water trawls for harvesting marine fishes have received considerable attention by fishermen and fishery investigators since the end of World War II. Various attempts at using this type of gear have been made by practically every fishery power around the world. The Europeans have been especially prolific in producing a variety of nets referred to as "midwater trawls". Some of these use trawl doors which slide along the bottom, similiar to regular trawl gear. The difference is that the net is made to fly some distance over the bottom. Actually, this is the principle used by many of the nets which are claimed to be midwater.

True midwater gear, which is completely independent of the bottom, has been tried with a variety of experimental gear. The "Phanton" trawl was given considerable publicity, but it has not found use, at least not in this country. A major problem confronting true midwater gear has been calculating the operating depth of the gear and design of doors which would operate efficiently off the bottom. The Canadians (See Pacific Fisherman, June, 1956) seem to have made progress along these lines and have developed an efficient mid-water net which is popular with some of the commercial herring fishermen. The depth of the net is obtained from a graph which was constructed from the relationship of wire or warp run to the angle or depression of the wire from the horizontal. This method is claimed to be sufficiently accurate during experimental work.

The use of the Canadian mid-water trawl has been restricted to inshore waters and its efficiency for the more vigorous off-shore fishing remains to be tested. A cooperative study of mid-water gear is currently being conducted aboard the U. S. Fish and Wildlife vessel *John N. Cobb*. The investigation has brought together some of the best trained technicians in this field. Aboard the *Cobb* are gear specialists from the F.W.S. gear research laboratory at Coral Gables, Fla. These men have observed the operation of mid-water gear with television. From Florida they brought a mid-water net over which they are optimistic for capturing larger fishes, such as ocean perch, rockfish and true cod.

An interesting device called a "telemeter", designed at the University of Miami, is also being tried out in the *Cobb* researches. The "telemeter is attached to the head rope in front of the mid-water net. A continuous signal is transmitted by the telemeter. This is detected aboard the vessel and the depth of the gear is determined by the frequency, which varies with pressure. The telemeter may be considered a sounding device which is very sensitive to pressure change. As the gear descends, the pressure change cause a simultaneous change in the frequency of the signal omitted by the transducer. The frequency of the signal is in direct relation to the depth.

Also, aboard the *Cobb* are the Canadians and their midwater herring gear. The Canadians will test their nets in the off-shore water along the West Coast of Vancouver and will have the assistance of the telemeter to make actual calculations go to the depth of the net.

The six-week cruise of the *Cobb* should shed considerable light on the potentialities of mid-water trawling.

Halibut Commission Carries Out Small Fish Studies

The International Pacific Halibut Commission is reported to be readying for a 60 to 90-day study on the abundance, occurrence and distribution of small halibut along the Vancouver Island Coast and in the Hecate Strait region. The investigation, which will probably get under way in June will be a part of the Commission's overall program in studying phrases on the halibut fishery which may ef abundance, and which may be be ficial in predicting trends of abu ance. The investigators will use a riety of nets and possible traps to c ture the young fish. The Commiss will use a trawler for the two to th month cruise.

Manila Trawls Win Praise on Pacific

Pacific Northwest trawlers are t ing in enthusiastic tones regarding newly designed imported English nila trawl nets. The nets include number of modifications and desi recommended by Everett trawler W Minor, which are especially aimed local trawling. The manila nets stronger than the hemp nets wh spread through the West Coast seve years ago. A feature of the English is the elimination of rib lines. gathering in or taking in meshes desired areas on the net the effect rib lines is created with the gathe meshes. This gives the strength nec sary for large tows. The cost of nets are reported relatively cheap another reason for their popularity.

'Mitkof' and 'Tordenskjold On North Pacific Research

Two Seattle schooners *Mitkof* a *Tordenskjold* are on charter in t North Eastern Pacific to the U. Fish and Wildlife Service. Both v sels were engaged in research studi for the International North Paci Fisheries Commission during 195 *Tordenskjold* will operate in the Beri Sea area to carry out King Cr studies and will also participate in o shore gill netting later in the seasc *Mitkof* has been engaged in offsh salmon gill netting and at the last port had completed a track Westwa along the 48th parallel to the Ale tians. Weather was termed "savag and the operation was often slow by strong westerlies. *Mitkof* and *T denskold* normally operate in the S attle trawl fleet and are skippered "Buddy" Angell and Carl Serwold, spectively.

Subsidy for Dogfish

Word down from the Canadi Fishing fleet reports that their g ernment is now paying a $10 a t subsidy to fishermen landing dogfi The help from the government ca about as a result of increased co plaints by many segments of the co mercial fishing industry as to damage being caused to sieners, tra ers and gillnetters by dogfish. The d fish, fishery highly prized as a sou of vitamin A during and shortly af World War II became unprofita

fter the development of synthetic vita-
in A. Sizes of dogfish populations
llowing the heavy World War II
shery were considered to be at very
w levels and fishermen were seldom
othered by the pesky shark. Since the
limination of the fishery, dogfish have
pparently been on the increase and
ccumulated stocks are now at rela-
vely high levels. The once productive
0-mile and Swiftsure trawling banks
re unfishable at certain times, be-
ause of the large schools of dogfish.
Fishermen from both the Puget
ound area and from Canada complain
f the trouble caused from increased
umbers of dogfish. The new subsidy
ay help encourage a Canadian fish-
ry on the troublesome shark. A quota
f 30,000 tons has been set.

Mackerel Prospects Poor

In recent issues of the California
uarterly journal, John E. Fitch, ma-
ne biologist, predicted the "doom" of
ie California mackerel fishery if un-
estricted removal of immature fish
ere continued. Mr. Fitch pointed
ut that during the 1954-55 season
9% of the catch was estimated to
e composed of the 1953 year class.
lone of these fish had spawned prior
capture. Only 7/10ths of one per-
ent of 44.8 million fish taken in the
954-55 seasons were older than 36
months. Mr. Fitch predicted that if a superior year class is not hatched in either 1955 or 1956, it will be "impossible for the fishery to yield more than 5 million pounds. This may be compared with a 107 million pounds produced in the 1926-27 season. The possibilities of a large hatch are reported "remote," considering meager spawning stock from which these come.

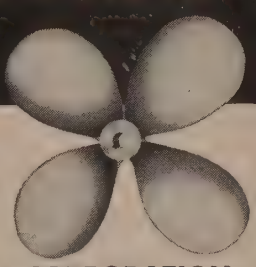
SAN DIEGO BITE-SIZE ITEMS

ANTHONY L. MADRUGA, only 55, for many years assistant manager of the American Tunaboat Association, died at his home in mid-May, San Diego. . . He first was with General Petroleum when he came from Pico in the Azores; then he was port captain for the firm that later became Westgate-California Tuna Packing Co. . . . Leo Correia, skipper of the *Mermaid*, recently had an operation for a back injury. . . . Frances Marie Perry, daughter of tuna boat operator, Frank Perry, who also doubles in general and marine insurance, was queen of the May 20 Portuguese fishing fiesta in San Diego. . . . John Rawlings, hired by the California Fish Canners Association for a study of refrigeration of tuna at sea, has left to tackle his new job on the Paramount.

THERE'S A NEW bait hauler in San Diego which may be a prototype for handling bait by tuna clippers. It was designed by Philip Thearle, built by Mauricio and Sons to specifications by the owners, Roy and Charles Everingham. . . . bait is taken from a net boat on the starboard side into two central holds, through side hatches. . . . *Elsinore*, sister ship to *Independence, Missouri; Concho, Westport*, was to be launched in early June by National Steel, the builder's yard. . . . *Westport*, the latest of the vessels to hit the water, sailed for the tuna grounds in late March. . . . Joe Togers, owner of the *Constitution*, is reported recovering well from a recent operation. . . Manuel Gonzalves took the *Charlene* on her last trip. . . . Anthony Madruga has sold his *South Seas* to Steve Stagnaro. . . . A short circuit in the engine room of the *May Queen* at San Diego caused a small fire which burned a hole through the deck but did no other damage. . . . *Black Douglas* is now stationed at San Diego and is working on research for the Fish and Wildlife Service out of La Jolla.

Columbian

4-BLADERS



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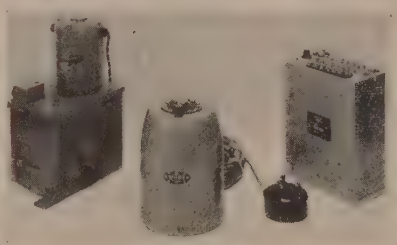

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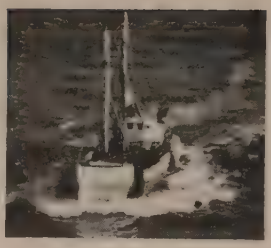

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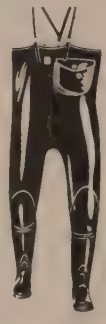

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Western Explorer" as Tragic End

The tragedy of the sea and the self-sness of fellow fisherman combined the sinking of the *Western Explorer*, rse seiner, on Secorro Island.

Three men were killed; and two of : vessel's crew are missing.

Frank Manaka, skipper of the boat, d one of the most capable in San dro's fleet, and six crewmen give iteful credit for their rescue during : chubasco which carried their boat the rocks to the *Stella Maris*, skip-red by George Fukuzaki.

Mr. Manaka said that the *Stella aris* skipper piloted a small power ff through huge waves along the ged reefs of the island to pick up : survivors.

Manaka also said that five other hing boats assisted in the rescue: *ithony M.*, which gave the first mes-ge of the sinking. *Sunbeam, Cour-eous, Sea King* and the *Mondego.*

The surviving crew, and the three ad crewmen, were brought to port by : Navy icebreaker *Burton Island.*

Dead are Shiro Matsushita, Masay-ni Masuda and Mike Babich. Missing : Gentaro Endo and Kyoji Nakane.

Wedding Bells for Captain Johnnie Dale

Captain Johnnie Dale, for years one the best known highline fisherman erating out of Vancouver, B.C., was arried recently in Winnipeg to Miss innifred Claire Ferguson of the anitoba city. The honeymoon was ent in Florida and California.

Johnnie Dale was a seiner skipper r Nootka Packing Co. before that mpany was taken over by Canadian shing Co. and he has been associ-ed with the latter company since en.

Miss Repanich Marries Jerome Barta, Portland

Miss Janet Bernice Repanich be-me the bride of Jerome Peter Barta, ne 16, 1956, at a nuptial mass at rist the King Church, Seattle. She the daughter of Mr. and Mrs. Jack Repanich of Seattle.

Mr. Repanich is the president of shermen's Packing Corporation, nacortes.

The bridegroom is the son of Mr. d Mrs. Peter Barta, of Portland, e. The bride attended Holy Angels cademy and Charette's School of esign. Mr. Barta is a graduate of the niversity of Portland and received s Master of Education there.

After a honeymoon trip to Mexico ty and Accupulco, the couple will side in Oregon.

Here's Hubert J. Koskey, Silverdale, Wash., and his 1956-new **Seacrest**, a 40' troller which he himself built from his own model. The craft ranks with the fine trollers of the current crop and her performance with her 4-51 GM diesel puts that satisfied smile on Koskey's face. The GM works through a 3:1 reduction gear with hydraulic shift.

Seacrest cruises 9.0 knots at 2,300 engine rpm., and has proven top speed of 9.5 knots. She will carry 15,000 lbs. of iced fish. After running her out of Westport for the first weeks of the season, Mr. Koskey took his new craft to Cape Cross in May, expecting to fish in that area until about September 1, when he will start working south again to the Cape Flattery grounds.

Talking about his choice of engine, Mr. Koskey told Chuck Evans of Evans Engine & Equipment Co., from whom it was purchased: "I wanted a high-speed diesel, reduction-geared, which would idle-down nicely for trolling. I expect to fish at about 600 rpm. on the engine, with the 28 by 17" wheel turning only 200 rpm. That produces dependable power at a fish-getting pace."

Union Fishermen's Office Moves Into Cannery

Union Fishermen's Cooperative Packing Co., Astoria, has disposed of its headquarters office building at Astoria to the International Longshoremen's local and will move its offices into the cannery building proper. This will put Manager Rolf Ostrem into immediate touch with plant operations, and also will permit use of a larger adjacent area for parking of employes' cars.

Halibut Will Help To Heal President

Knowing that halibut is good for folks, and particularly for those recovering from an operation or other serious illness, Seattle halibut fishermen's wives in June decided to send a prime halibut to President Eisenhower.

They asked Governor Arthur B. Langlie of Washington to select the fish, which he did on a visit to Seattle June 15, forwarding the fish to the President as a present from Seattle halibut fishermen and their wives, with a "to help you get well message."

Bering Sea King Crab Fishing Fluctuates

A wide swing from "excellent" to "poor" marked the Bering Sea King crab fishing during the spring months. Toward the end of May the crabs became scarce, where they had been plentiful and fine, and the Japanese and American operations went on a scouting basis.

Two American vessels are working the Sea this season, *Deep Sea* of Wakefield's Deep Sea Trawlers, Inc., and Capt. J. E. Shields' *Nordic Maid.*

Automatic Pilot Has Nine Year Record

Belle J. II is equipped with a Bendix 45 automatic pilot, which has been working for nine years aboard the boat. The owners, Mr. and Mrs. Gus Johannson, and their dog Pancho, are known all along the Pacific Coast as fishermen of Albacore and salmon.

Bendix Marine reports that Skipper Johannson states the boat frequently goes 60 to 70 hours without touching the wheel. The course is changed frequently, but this is done by using the course changer button.

ARK PLASTIC FLOATS

Here's the latest thing in floats—the ARK plast float. Only half the weight of cork, ARK plastic floats will not absorb water . . . will no rot and the materials used to wash and clean nets will not affect them.

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SAN PEDRO SEINE SETS

VHITE MOTOR COMPANY, minal Island branch, has been busy rhauling engines on the *Santa Ros-*, *St. Augustine* and the *Sea Rose*. Cootes, superintendent (J. A. nn is manager), reports the engine pany has also re-built the Atlas n engine on the *Hawk II* which damaged by fire recently. . . . the t is being sold to Mexican interests, r repair, it is reported. . . . *An- ny M*, now working with her new f, powered with a Hanley Hydro- Chrysler unit, completed a record of 22 days and is back fishing in on the high seas off South erica.

VINCENT THOMAS, California emblyman, says his first job came m Joseph M. Mardesich, the foun- of Franco-Italian Packing Com- ny (Mr. Mardesich's son now is sident of the cannery); and that his ond job was with French Sardine . . . . Mr. Thomas spoke at the ban- et in early May for the Yugoslav bassador, Leo Mates. Mr. Thomas a second generation Slavonian. . . . r. and Mrs. Andro Bezmalinovich ently celebrated their 35th wedding niversary in San Pedro.

DR. SVEN LASSEN, associated th Van Camp Sea Food Co. and the illip R. Park Co. of San Pedro, in ay was attending an international heries conference in Copenhagen d later visited relatives in Norway, gland, etc. . . The Yugoslav Wo- an's Club, San Pedro, recently dedi- ted its new clubhouse. . . Mrs. An- ony Thomas is charter president, eorgia Plancich is president and Mrs. ncent Kaliterna is building chair- an. . . . May 19 was Star-Kist Little eague Day at Gilmore Field in Los ngeles, home of the Hollywood Stars seball team. . . . Bernard Joseph attera, San Pedro fisherman, is en- ged to Shirley Ann Buratovich, also San Pedro. . . Mrs. Frank Califano San Pedro was honored by a sur- ise shower in May. . . . For the 1956 shermen's Fiesta serving on the eering committee from the fishing dustry are: Mason Case and Charles Carry, vice chairmen; John Galise, Donald P. Loker, Anthony Sokiolich. Mr. Carry will serve as chairman of the publicity committee, according to the Fiesta's chairman, Dr. Elton C. Spires. . . . Mrs. Anthony Cigliano—her husband is the son of Gerald Cigliano, president of the Pan Pacific Fisheries—was honored in May, in a Mother's Day observance, as the youngest mother of a member of the Elks Lodge of San Pedro.

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Frances Marie Perry, daughter of tuna clipper owner **Frank Perry** of San Diego, was the queen of the annual Portuguese Fiesta at Point Loma. She is holding here the "Crown of the Holy Ghost", handed down from queen to queen since 1911 when the first fiesta was held in San Diego.

New Offices for San Diego Cooperative

San Diego's *Albacore* fishermen's cooperative has moved to new offices at 2401 Harbor Drive. The group is known as Five Star Fish and Cold Storage Company and the new location is on the site of the Signal Fuel and Ice Dock.

The phone number, says Mary Barrett, assistant secretary, is Belmont 3-1611, and there is plenty of parking space. The cooperative wishes to extend, through *Pacific Fisherman's News,* an invitation to all *Albacore* fishermen to visit the office before, during and after the season.

Fiesta Reigned by Frances Marie Perry

Frank M. Perry, San Diego tuna boat owner, was president of this year's Festa Do Divino Espirito Santo, held at San Diego May 16 through May 20. As president, he was entitled to select someone from his family to act as queen, and he chose his 12-year old daughter, Frances Marie.

The Festa of the Divine Holy Ghost has been celebrated by the tuna fishermen of Portuguese birth and descent at San Diego since 1911. The "Festa" has been traced to the 14th century and is said to have originated in Portugal during the reign of Queen Isabel.

The first three days of the "Festa" feature dinners and dances at the United Portuguese Hall at Point Loma. Then the climax is the religious phase of the event: Frances Marie led the procession from the Hall to St. Agnes Church for mass, and there was crowned as a part of the ceremony, on Pentecost Sunday, the fifth day of the Portuguese Fiesta.

Following the mass, Queen Frances Marie returned the crown to its special place where it will be kept until next year's "Festa".

On the fourth day the queen took the "Crown of the Holy Ghost" from the hall to St. Agnes church through decorated streets.

Crabbers Ship Sounders

San Francisco crab boats equipped with Bendix depth indicators for the opening of the new season included these vessels on which installations were made by Mercury Marine Electric and Marine Radio Electronics of San Francisco:

St. Christopher, Jose Sia, Jennie Jean, Sandre Dee, Vera II, Baby Sea Lion, Luann, Frankie Joe, Carmela Maria, Mary S II, Linda Marie.

Shoreline Diesel Grows

Shoreline Diesel Maintenance Co., Fishermen's Wharf, San Francisco, is expanding its quarters. The company has recently built a new warehouse near the main office and shops.

Tex Hearne, skipper of the *Lady Charlene,* salmon boat, recently had his GM 6-71 diesel engine completely overhauled by Shoreline Diesel, as did Dominic Matero, *Linda Marie.*

New Engine For Santa Cruz Craft

Gus Canepa, Santa Cruz, has repowered his salmon troller with a Nordberg Marlin engine, 1:88-1 reverse and reduction gear. The engine was purchased from King-Knight Co., San Francisco.

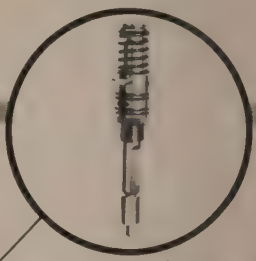
Look at the evidence of MURPHY "TRUE DIESEL" OPERATION

Look inside a Murphy Diesel for the reasons why Murphy engines are noted for economy, dependability and long life. You'll find design features ordinarily found only in large diesel engines . . . the "true diesel" features offered by no other engine in Murphy's size and power range.

Look for these features in your next diesel engine. Ask your Murphy Diesel Dealer to explain the advantages of "true diesel" operation for your power requirements.

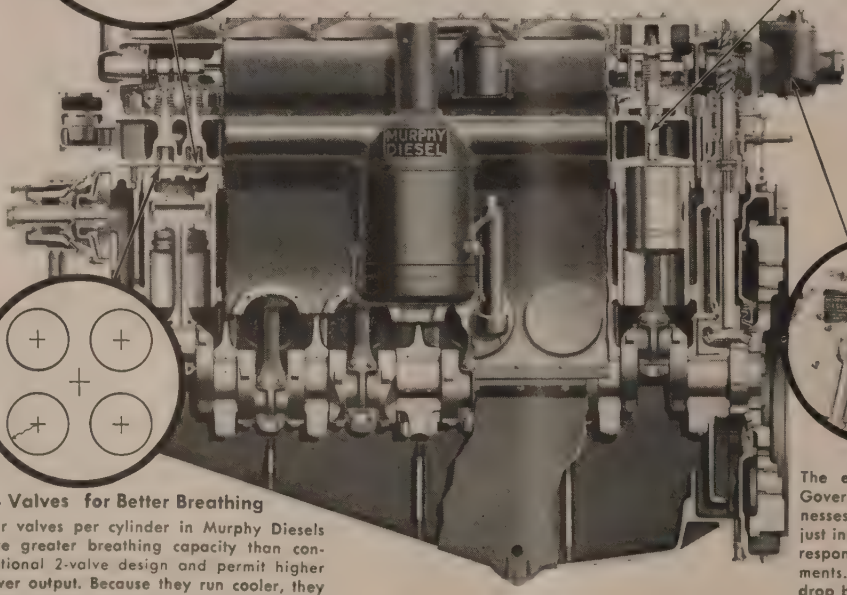
Plain, Open Combustion Chamber

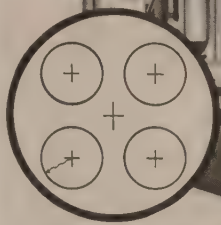
The Murphy Diesel's plain, open combustion chamber, like that of time-tested larger engines, assures *complete* combustion. Murphy owners get maximum power from each drop of fuel with less engine wear.



Precisely Controlled Fuel Injection

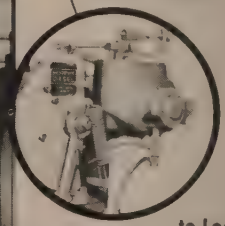
In the Murphy Diesel, fue injection for each cylinde is accurately controlled b a simple injector unit whic serves as both pump an nozzle. High pressure fue lines are eliminated. There is no erratic, irregular in jection, no after-dribblin or air binding.





4 Valves for Better Breathing

Four valves per cylinder in Murphy Diesels have greater breathing capacity than conventional 2-valve design and permit higher power output. Because they run cooler, they rarely have to be ground. Valve troubles are virtually unknown.



Instan Respons to Load Chang

The exclusive Hydraulic Servo-Typ Governor on a Murphy Diesel ha nesses lubricating oil pressure to ac just injector controls for instantaneou response to changing power requir ments. If lube oil pressure shoul drop below a safe level, the governo automatically shuts off the engine.

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Murphy Diesel marine propulsion engines and auxiliaries are made in sizes from 96 to 243 H.P.; marine type generator sets from 64 to 165 K.W.

LINES and LEADERS

lar Co., Wilmington, dles Wirkkala Propellers

e Wirkkala marine propeller, manu-red in Alameda, Calif., is now being in Southern California through the ar Co., which also sells Nordberg en-, under the general management of r Bykerk, working from the offices Vilmington Boat Works, Wilmington. is propeller is adaptable to commer-fishing boats, work boats and pleasure and is rated by the designer and ufacturer to increase boat speed and ce fuel use without increasing engine

s Interlux Line

esel Technical Service, Inc., 666 State San Diego, Calif., has been appointed ibutor in the San Diego area for the lux line of marine paints, according net Owen, manager, Interlux Division, national Paint Co., South San Fran-

complete line of Interlux paints will ocked, according to Machado Medina, dent of Diesel Technical Service, Inc., owns and operates a fleet of tuna out of the southern California port.

bury Granted Patent Aqua-Clear Feeders

dbury Laboratory has been granted Patent No. 2,745,550 covering the a-Clear Feeder, an invention of H. J. nson, director of the laboratory, for treatment of water to prevent rust corrosion.

re than 35,000 users of Aqua-Clear ers and Aqua-Clear Crystals are now red that they have the original pat-d equipment, the only equipment of ind to be covered by U. S. Patent.

iotelephones Are pact and Powerful

e new Bendix Skipper radiotele-es, it is announced by the Bendix ne of North Hollywood, Calif., are ler in size, greater in power and in-rate, for the first time, new printed itry for reliability and easier service. ere are five new models, with input r from 28 to 250 watts and with 6 or 8 nels, crystal controlled for both trans-ng and receiving.

ndix telephones include squelch con-automatic noise limiter, harmonic ression, modulation limiting, illumi-d channel selector, provision for r megaphone and for remote con-and they comply with all FCC regu-ns now or impending.

New Line Added By Red Wing Marine

Another step in the company's expansion program was announced this month by the Red Wing Marine Corporation, Red Wing, Minnesota, with the purchase from the Kermath Engine Company of Detroit of the manufacturing rights, parts and service operations for the Kermath **Sea Raider** line of gasoline engines. The purchase includes the Sea Raider 275 h.p. Six, and the Sea Raider V-12 Special 580 h.p. model, known as the king of gasoline marine engines.

These models added to Red Wing's complete line of gasoline models 10 to 150 h.p. now afford boat builders and users the most complete range of gasoline marine engines in the industry. In addition, Red Wing's line of marine diesels is being augmented by new Turbo-charged units developed up to 500 h.p.

Buda Company Sold To Utility Trailer Sales

Buda Engine & Equipment Co. for many years northern California distributors for Buda Diesel and gas engines, has been purchased by the Utility Trailer Sales Co., Engine Division.

The location of the new firm remains the same—470 Bayshore blvd., San Francisco, and Charles H. Riding remains as manager of the new company.

The entire line of Allis-Chalmers Buda division gas and Diesel engines, truck, marine and industrial will be handled by the new company.

Booklet on How To Select Conveyor Belts

A new 16-page booklet "A profitable approach to the selection of steel processing conveyor belts" has been made available by The Colorado Fuel and Iron Corporation. This booklet discusses the company's Wissco line of standard steel processing belts which will handle more than 90% of all conveyorized processes requiring the durability and strength of a plain or stainless steel belt.

Wissco standard belts are flexible moving steel platforms of open mesh construction to allow full circulation and drainage. This booklet gives complete specifications and outlines a simplified plan for selecting the right belt to meet specific needs. Copies may be obtained by request to the New York Advertising Department of The Colorado Fuel and Iron Corporation.

Cannery Belting was the subject when PF pictured **T. McKinley,** left, supervisor, conveyor belt sales, Cyclone Fence Department, American Steel & Wire Division, U. S. Steel Corporation, Oakland, and **Fred Miller,** newly appointed Pacific Northwest conveyor belt representative examining a sample of Cyclone fish belt conveyor. Mr. Miller has been with the company for the past 10 years, specializing in wire conveyor belting. He will make his headquarters in the company's office at 400 North East 11th ave., Portland, Ore., to give special service to the fish canneries and fish processing plants in the Pacific Northwest.

Push Button Control Available for Boats

Shore Line Diesel Maintenance, Fishermen's Wharf, San Francisco, have developed a very neat and practical remote electric throttle control, according to Simon J. Yragui and Walter Lunardini, partners.

Two or three stations may be set up in the boat. By push button control the operator can make the boat go as fast or as slow as desired. It is especially adapted for salmon and albacore trollers.

Lipsett Promotions Announced

Kenneth D. Creer, president and general manager, Edward Lipsett, Ltd., Vancouver, B. C., fishermen's supply house, has announced appointment of A. R. Sinclair as merchandise manager, W. P. Elkins as marine manager and D. C. Cameron, sales manager at the company's head office.

Fuller's Palmer Field On Hawaiian Island Tour

Palmer Field, advertising and sales promotion manager of W. P. Fuller & Co., San Francisco paint manufacturers and chairman of a San Francisco Chamber of Commerce committee on marketing and sales promotion, left last month to spend

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FISHING BOATS FOR SALE: Trollers and Monterey Purse Seiners. DON WOODWARD, Boat and Real Estate Broker, at Marine Supply Store, PO Box 45-A, MOSS LANDING, California. Telephone CASTROVILLE 6652; or apply at OAKLAND ESTUARY BRANCH, Don Woodward, Jr., Manager, care Evans Radio Dock, 901 19th Avenue, Oakland, California; Telephone KEllog 2-8158.

FOR SALE: 82' Seiner, 250 Atlas, 95 Ton Refr. Hold, 110 V. System, $42,000; 51' Steel Troller, 25 Ton Hold, Winch, Salmon Gurdies, $16,500; 36' x 13' Plywood 6 Ton Refrig., full electronic equip., $7,000. FRANK SIMON ASSOCIATES, Berth 205A, P. O. Box 834, Wilmington, Calif. TE 5-3101.

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a month in the Hawaiian Islands to c with Hawaiian businessmen and t experts.

Representing a sub-committee of chamber's domestic trade committee, will discuss the matter of getting tourists who visit the Islands to also San Francisco.

While in Hawaii, Field will also di the company's Hawaiian operation John M. Fullerk, district manager o Fuller company there. He will also various company stores and installa in the Islands.

Hawaiians Purchase Bendix Equipment

Bob Yamanaka of Island Radio Se and Sales Company in Honolulu re heavy activity in installing Bendix A matic Pilots and Depth Sounders in r months.

Yamanaka has installed a Bendix A matic Pilot Model 125 on each of the lowing boats: **Buccaneer,** owned by No Tsue; **Luika,** owned by Guy Roth **Aukaka,** by Dave Nottage; **5 Sisters** Howard Mooko; **Azara,** by Len L **Paul K,** by Paul Kimura, and **A** owned by Aukai Fishing Company.

He has also installed Bendix Depth corders, Model DR-12 on **Tropica** owned by James Fencel; **5 Sisters** Howard Mooko, and on **Kouan** owned by Y. Nakashima.

On **Tenjin Maru,** owned by Manjiro and on **Skippy,** owned by James Wob installed Bendix Depth Recorders, M DR-15.

* * *

Chet Owen, manager, Interlux Div International Paint Co., South San F cisco, is back at his desk after his a trip to the Hawaiian Islands.

"Betty Zane" Instrument

Betty Zane, combination owned by Glenn DeLay, Con Calif., has been equipped witl Apelco Model AEIO automatic and Apelco DFR-7A direction f by Electronics for Yachting, W Creek.

Gordon Blumenfeld, who has with Applied Electronics, San cisco, manufacturers of Apelco tronic devices, for the past five one-half years, has been appo sales engineer for the company. well known among marine dealer

"Arleces" Gets Diesel

Augne Blenheim, skipper of t Grandy-built Seattle seiner *A* powered the craft this spring w model 844 Allis-Chalmers (Buda rine diesel, working through a Capitol hydraulic gear.

What are Highlights Of Seawater Chilling?

Highlights of early experience in rapidly-developing practice of ling and transporting salmon in igerated seawater were emphasized ore the 18th annual Salmon Cut- by J. S. M. Harrison, research ineer at the Pacific Fisheries Ex- mental Station, Vancouver, B.C., re the early research in this tech- gical development had its origin.

Most important of all"—so Mr. rison characterized the finding salmon carried in a tank of re- erated seawater did not settle and k. They are in a condition of bare lation, and suffer not at all from shing.

tability of the vessel need not be cted adversely; and *may* be im- ved.

Unloading by brailing from the t is faster than in the case of iced ; and Mr. Harrison said Ameri- firms, Whiz Fish Products Co., y, McNeill & Libby and Seldovia Packing Co., had found unload- seawater-chilled fish by mechani- means entirely practicable.

reshness of the fish is protected seawater chilling for from 40 to longer than in crushed ice.

Weight loss is much less than in –and "here lies the greatest eco- ic potential for seawater chilling".

urd formation in salmon canned seawater chilled fish is *probably* iced.

alt penetration in the case of sal- is *very slight* and not sufficient e a problem, although this is not in the case of some lean species fish.

ading of color does not occur.

ntibiotic protection of freshness solution of aureomycin in sea- r is much more effective than where the aureomycin is used in the ice in which the fish is packed.

"Combination of refrigerated seawater *and* aureomycin in solution appears *ideal* for protecting the quality of fish, although we know that the use of chilled seawater alone is a real technological advance", Mr. Harrison concluded.

Trollers Install New Equipment

Cass Gidley, Ross, Calif., has equipped his troller *Patricia G.* with an Apelco radio phone Model AE42; the *Linda Marie* owned by Dominic Mattera, San Francisco, has a new Model 98 Apelco; and the *Cad* owned by Biff Senner, San Francisco, recently installed a Raytheon Model DE116 Fathometer. All were purchased from Cal-Marine Radio Phone, Fishermen's Wharf, San Francisco.

Fishermen-Dealers Agree on Prices

Some 200 salmon boats are fishing out of Eureka and Fort Bragg, Trinidad and Crescent City as the result of a price settlement being reached, according to a report from Henry Tervo, secretary of the Humboldt Fishermen's Marketing Association, Inc.

Tervo said dealers agreed to pay 40 cents for 12-lb salmon, 32 cents for medium (8-12 lbs.) and 29 cents for small salmon under 8 lbs.

F. Monterosso Dies

Francesco Monterosso, 80, well-known San Francisco fishermen, died last month. He was the father-in-law of John Morello, former fish boss for the Bristol Bay Packing Co.

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Mrs. Francis Furber Rescued at Sea

A woman was rescued from a grounded salmon troller near Pt. Reyes last month after her husband swam ashore to seek aid.

A 19-year-old Coast Guardsman, Harvey Friese, swam out among the rocks and he and Mrs. Francis Furber were pulled safely back to shore.

The *Patricia* a 44′ salmon troller from Moss Landing, went on the rocks in a heavy fog, as Mr. and Mrs. Furber were sailing to Eureka to fish for salmon. Mr. Furber left his wife on the boat, which was pinned in the rocks, and swam ashore through the dangerous surf to get help. He climbed a 300′ cliff but then lay exhausted several hours before continuing several miles to the Coast Guard station. The USCG cutter *Ewing* brought Mrs. Furber to the station.

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It's the time-proved General Motors Series 110 Diesel, newly equipped with a side-mounted blower similar to the one used on the famous 71 Series. It's a more compact engine. It's shorter. It's lower. It's easier to install and easier to maintain.

If you're planning to buy a new boat—or repower your present one—get the power you need and the performance you want from this new Series 110. It's also available as a Tandem *Twin* that delivers up to 476 *shaft* horsepower for work boats—yet weighs as much as ten tons less than older Diesels of lesser power.

The new blower makes the Series 110 Diesel engine far more versatile—available with *either* right- or left-hand rotation and many other features that contribute to longer life with reduced maintenance.

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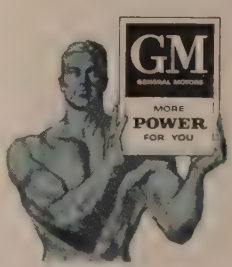

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K hikan Baskets—The two sizes of freezing-glazing-storage and handling pallet baskets used by Ketchikan Cold Storage. The long one on the left is specially for handling whale halibut. The baskets were filled with frozen cod for purposes of the picture.

How Pallet Baskets Raise Fish Quality While Lowering Costs

How to raise quality while lowering ·t.

That's a prime objective of any pro- ssive business; and doubly so in the n freezing and cold storage business; l *triply* so if the sold storage is lo- ed in Alaska.

Cost of hand labor in putting fish o freezer, and taking them out; in ting them into the glazing tank and ing them out; in putting them into rage, and taking them out; in box- them for shipment, and unboxing m—all this comes high; and par- larly so in Alaska.

Moreover, every handling leaves its rk on the quality of the fish.

Fish freezers have made a lot of gress in coping with this condition l in seeking the goal of higher qual- with lower cost. Fork trucks have ped, and electric hoists; and now nbinations of containers and me- anical aids are speeding the pace.

Ketchikan Cold Storage is a case in nt. True, there are other storages ere much advance has been made eady; and there is still ground to be ned, but the Ketchikan story shows at can be done, and is worth the ing.

James G. Pinkerton, manager, this spring is putting the Ketchikan Cold Storage Company into the pallet basket handling of frozen fish in a big way. Decision to spend money — a lot — for this quality saving, cost-cutting venture came after the company's profitable experience in the handling of 1,700,000 lbs. of frozen bait herring a year by means of wooden pallets and electric trucks.

Jim Pinkerton, left, manager of the Ketchikan Cold Storage, hands a check for $3,615 to Nels Nelson, owner of the troller "Tuckahoe," for his trip of 11,600 lbs. of Cohoes, largest landed in Alaska last season.

This experience was backed also by the savings shown by use of the wire basket-pallets at the Port of Seattle's Spokane Street Cold Storage. Mr. Pinkerton spent some time in Seattle early in the spring studying the application of the method, and what he saw and learned made the Ketchikan plant the newest convert to the method.

● The Ketchikan plant this season will handle its frozen halibut and salmon in 400 wire "Palletainer" baskets. Of these half are 40″ wide by 48″ long by 36″ high, and equipped with a side gate to facilitate loading and emptying the basket without damage to the fish. The heavily galvanized baskets of this size will hold 1,100 lbs. of medium and chicken halibut, salmon or sablefish. Cost of these baskets is just under $50 each.

For large halibut the company will have 200 baskets 40″ wide by 72″ long by 24″ high, with capacity for 1,200 lbs. of frozen fish.

The baskets stand on short metal legs, deeply grooved to fit the rail of

Here's a rope to brag about!

ROEBLING PREFORMED

SPECIAL GALVANIZED

NEXT TIME you buy fishing rope, make it the best rope we've ever produced . . . Roebling Preformed Special Galvanized. This rope brings you three outstanding advantages:

1–Special galvanizing that gives every wire in the rope absolutely top resistance to corrosion.

2–A fibre core impregnated with a preservative that prevents excessive absorption . . . greatly lessens the destructive effects of salt water, fungi, mildew and electrolysis.

3–Roebling preforming that makes the rope easier to handle, brings smoother drum winding and helps prevent kinking and whipping.

And besides Preformed Special Galvanized, there's a Roebling wire rope that will give you top efficiency and long-run economy for standing rigging and every other service. Call your distributor or the nearest Roebling office. They are listed in the yellow pages. John A. Roebling's Sons Corporation, Trenton 2, N. J.

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Subsidiary of The Colorado Fuel and Iron Corporation

ONAN Electric Plants...

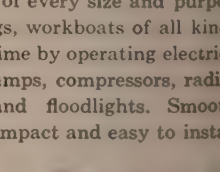
The trawler "GOODWILL" Onan-equipped.

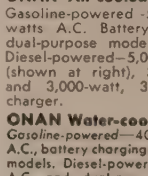
for dependable light and power!

There's an Onan electric plant or generator the rig capacity and type for craft of every size and purpo . . . shrimpers, trawlers, tugs, workboats of all kin They speed work and save time by operating electri equipment such as bilge pumps, compressors, radi pressure water systems and floodlights. Smoo running and dependable; compact and easy to inst

ONAN Air-cooled plants
Gasoline-powered -500 to 10,000 watts A.C. Battery charging and dual-purpose models. Diesel-powered–5,000 watts A.C. (shown at right), 3,000-watt A.C. and 3,000-watt, 32-volt battery charger.

ONAN Water-cooled plants
Gasoline-powered—400 to 3,000 watts, A.C., battery charging and dual-purpose models. Diesel-powered—3,000 watts A.C. and dual-purpose A.C.-battery-charging model.





Model 3DSP, 3KW Diesel-powered

Air-cooled models: 500 to 10,000 watts

Separate Generato 1½ to 35KW

Write for Folder of all Marine plants

D. W. ONAN & SONS IN

Onan ELECTRIC PLANTS

3594 University Ave., S. E., Minneapolis 14, Mi

sket below. This enables the filled ets to be stacked several high. side may be folded down flat for ge during inactive periods. The frozen on the shelves of the sharp ers are removed from the shelves ne baskets, preferably with the s all one way.

nen a fork truck picks up the bas- and takes it to the glazing tank. re it is left while the truck goes for another basket. The glazing picks up the basket with its load 100 lbs. of frozen halibut and dips the glazing tank until the ice glaze uilt up to the desired thickness. n the basket of glazed fish is set n by the hoist, picked up by the truck, and carried into the stor- rooms, where the baskets may be three high. In building these care is taken to have the napes rd the aisle.

eriodically during the period of ge the glaze is renewed by water yed from a hose, and with the s all toward the aisle it is easy naintain a good glaze on all cut aces and in the poke of the fish.

etchikan is trying yet another cost- r this season.

or some time the Alaska Steamship pany has made a practice of fur- ing 60 cu. ft. wooden "cribs" to et Sound firms for use in making ments to Alaska. This makes it ible to handle shipments by lift ks and ship's tackle with less hand k.

Mr. Pinkerton explains the planned nod in these words:

During the 1956 halibut season will start using the cribs to make shipments of frozen fish to Puget nd. A heavy paper inter-liner will sed to protect the crib, as they are equently used in the shipping of s which otherwise might pick up odor. Upon arrival at Seattle, the loads of fish will be unloaded by 's tackle without the fish being re- dled, will be placed on transfer ks and taken direct to the cold age plant. When the cribs are tied they will be returned to the ka Line terminal.

This method of shipping offers ral advantages. The cribs are fur- ed by the Alaska Steamship Com- free of charge. There is no ht charge on the weight of the when it is shipped full of fish. shipped in this manner arrive in r shape than when carried loose ne reefer compartments, and dur- he last few years there has been arked increase in the amount of n fish being shipped from Alaska lk.

here are several reasons for this: High cost of labor in Alaska; trim- ming and boxing cost less at Prince Rupert and Seattle; there is no need to box fish which are to be steaked and packaged; and a considerable quantity of frozen fish is being shipped East in bulk in rail cars or refriger- ated over-the-road trucks."

The crib liners are furnished to ship- pers by the Alaska Steamship Co. at 85c for the material to line a crib. The paper is furnished by Portco Corpora- tion, Vancouver, Wash., and comes in sheets 44 by 66". It is heavy multiply

Three Saving Steps at the Ketchikan Cold Storage. Upper photo shows the Alaska Steamship Co. "cargo crib," which is to be used with a heavy paper liner for shipping from fish south. Lower pictures show how bait herring frozen in cases is handled on labor-saving pallets. Each two-pallet truck load is a ton of herring. Lower picture shows how the fish hoist delivers a half-ton of bait on a pallet; and the old style of hand-loading into a cargo sling.

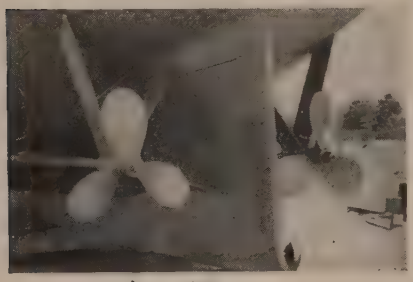
New "salmon tanker" depends on lasting Monel shafts

Here's a fishing boat — with a difference!

On long hauls the cannery tender *Snow Mist* keeps salmon fresh in refrigerated sea water. Twin tanks aft hold 5,000 gallons each.

She brings them in "dry" on shorter trips — in her 18-foot fish hold and in the tanks, too. Overhead cooling coils keep the temperature down to 30°F.

A true "salmon tanker," *Snow Mist* is like *many* fishing boats when it comes to shafting. To bring in catches *year after year*, these



Cannery tender Snow Mist—Jannsen Boat Works, Seattle, Wash., built this 74-footer and installed her two 3-inch dia. by 20-ft. Monel shafts for Whiz Fish Products Compar of Seattle. *Snow Mist* was designed by architect, William Garden.

boats depend on Monel shafts. That's because this nickel-copper alloy *lasts longer*. Monel resists corrosion even in tropical sea water.

And Seagoin' Monel shafts are 72 to 105% *stronger* than common bronze shafting. So they can handle higher horsepower safely. They're 57% *harder* — resist wear and stay smooth longer. They're 42% *stiffer*, too — to resist whip. What's more, they're 128% *tougher* — to withstand severe

So look for Monel nickel-copper a the boat you buy — for long life and my. Keep it in mind, too, when repo your present boat.

THE INTERNATIONAL NICKEL COMPAN

67 Wall Street New York

Monel "... *it's the Seagoin' metal*"

INCO Nickel Alloys

Monel and Seagoin' are registered trademarks of The International Nickel Company, Inc.

Fishermen's Packing Corporation

ANACORTES, WASH.

Canners of

PUGET SOUND SALMON

Our BRANDS

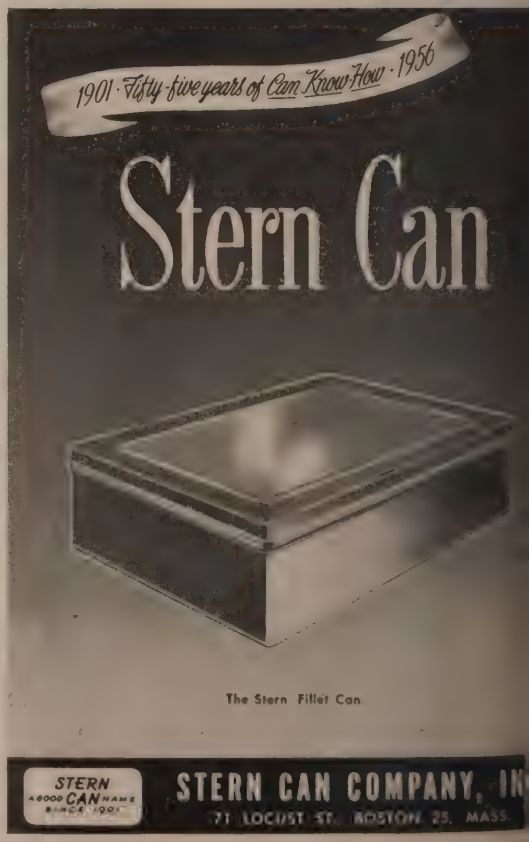
SOCKEYE
"Snow Cap"—"Snowland"

COHOE
"Olympic"—"Ocean Spray"
"Green Breaker"

PINK
"Waterfall"—"Ocean Blue"

CHUM
"Golden West"—"Golden Glow"

Cannery: **ANACORTES, WASH.**


1901 · Fifty-five years of Can Know-How · 1956
Stern Can
The Stern Fillet Can
STERN A GOOD CAN NAME SINCE 1901
STERN CAN COMPANY, IN
71 LOCUST ST. BOSTON 25, MASS.

Seattle
et baskets find many uses. On
right, idle baskets are stacked
gh for storage. In the upper
ure on the left, oysters frozen
ans for Harbor Seafoods are
g unloaded from the basket.
the lowered side gate. Lower
re shows Whitney & Co. opera-
with crabs frozen in the pallet
et being put into polyethylene
and heat-sealed on the machine
at the left.

k, and is composed of waxed kraft
er, creped to permit it to bulge
out breaking.

Virtually all herring frozen in Alas-
for use as bait by salmon trollers,
but and black cod fishing is frozen
50-pound fiber cases, a practice
ch originated in Alaska a number
ears ago to prevent damage to the
ing and to assist the fishermen in
ntaining cleaner boats. There is no
and now for herring frozen in the
style blocks.

GOOD LUCK from the Ketchikan
d Storage" is printed on one side
he cases in which that company
freezes its bait herring. From the freezer shelves these cases of herring are stacked on pallet boards in layers of five cases, four layers high, and remain in that form for storage. The pallet loads are stacked two-high, providing a one-ton unit. From the time the cases of frozen herring are stacked on the pallets they are not handled manually until the pallet is delivered by the dock hoist to the bait hatch.

Handling bait in this manner puts it aboard the vessel in much better condition and with a lot less effort and labor than was formerly the case when the cases were loaded onto flat-bed trucks and again into cargo slings as they were moved from the cold storage rooms to the fishing vessel.

● The Ketchikan Cold Storage is rated as the largest in Alaska, with 10,000 sq. ft. concrete floored fish house, six fish hoists, two ice crushers, 180,000 lbs. daily freezing capacity, and storage for 7,000,000 lbs. of frozen fish. Both block and flake ice are available on a 24-hour basis 7 days a week.

This season will be the second of the company's expanded field of operation in which it offers a buying, freezing and handling service in addition to its former role as a strictly custom cold storage.

AMERICAN M.A.R.C. modernizes

Hallett Diesel Production

American M.A.R.C.'s modern manufacturing techniques are your guarantee that Hallett Diesels—the leader in low horsepower engines—will have greater quality than ever before . . . and the savings from mass production methods will be passed along to you in the form of reduced delivered prices . . . Production modernization means that your dealer can supply Hallett Diesels on quick delivery notice!

For electric plants — pumping units — marine propulsion — Hallett Diesels are your guarantee of dependable service
Horsepower ranges from 5.5 to 25 in air and water cooled models

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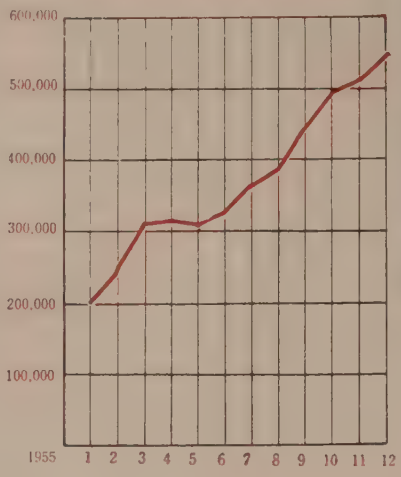
AFLOAT OR ASHORE—PACIFIC COMMERCIAL FISHERIES RELY ON BAKER ENGINEERING *Specialized* REFRIGERATION.

. . . The Choice of Experienced Fishermen!

OS ANGELES SAN PEDRO

Fishing Vessel REFRIGERATION

TRADE FRICK MARK



Use of the MANRYO Rot Proof Fishnet Spread throughout Japanese Fisheries

JAPANESE FISHERIES have made revolutionary progress in recent years through adoption of several notable improvements in techniques. One of these new developments is the use of synthetic fibre fishnets, and the most popular brand of synthetic fishnet is the "MANRYO" Because of the extremely widespread use of the MANRYO Fishnet a veritable revolution has taken place in Japan's marine industry. The monthly use of MANRYO Fishnets in Japan was, in 1955, as shown in the subjoined table, and it is obvious from the figures that MANRYO is rapidly replacing cotton fishnets.

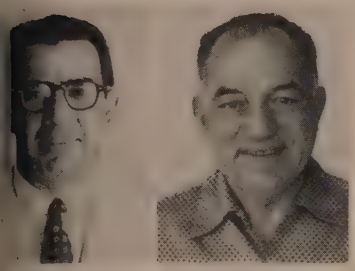
The improvements in efficiency that have been effected in Japan through the use of MANRYO Fishnets can easily be yours.

Attention: Manryo's netting, and rope have always this label attached - our trade mark.

KURASHIKI RAYON COMPANY, LTD.

Head Office: 2, Umeda, Kita-ku, Osaka, Japan.
Branch: 4, 2-chome, Nihonbashi-Muromachi, Chuo-ku, Tokyo, Japan
Cable Address: "KURARAY OSAKA"

Samples of Pacific Coasters at the NFI Convention



n Rubinstein **Lionel Shatz**
NFI convention attracted Mr. Rubinstein, d of a half-dozen Puget Sound and Alaska panies; and Mr. Shatz, manager of San Francisco's famous A. Paladini, Inc.

Rufe Littlefield **Dr. Joseph Stern**
Looks like Rufe's horse won and Joe's lost, you might say.

Frank Erickson **Jas. Pinkerton**
Mr. Erickson is president of the Aleutian Cold Storage Co. and Mr. Pinkerton manages the Ketchikan Cold Storage at the other extremity of Alaska.

efrigerated "Chief" Sets gh Standard as Tender

The refrigerated power scow *Chief* the Washington Fish & Oyster Co. et attracted a lot of attention at the mon Bay Terminal, Seattle, as she ded her cargo of cannery supplies lowing her conversion to sea-water lling.

The big craft is fitted with refriger- d tanks on deck, mechanical sea- ter cooling, and the ability to serve her for hauling fresh fish in chilled water or frozen fish in dry storage m the Wafico freezer at Port Wil- ms. She carries a mechanical ele- tor for unloading the fish from the illed seawater tanks.

laska Department Adds ristol Bay Biologist

Dean Paddock, fisheries biologist of attle, has been added to the staff of Alaska Department of Fisheries, cording to C. L. Anderson, director.

Mr. Paddock has just completed one d a half years work with the Wash- gton Department of Fisheries where conducted research on the fresh ter phases of salmon and worked in statistical section collecting catch tistics. Previously, he spent a short riod with the U. S. Fish and Wild- e Service.

Mr. Paddock's position with the partment will be that of district ologist in Bristol Bay, stationed at llingham.

erelson, Inc. Named u-Z-Ana Distributors

Berelson, Inc., San Francisco sea- od brokers, have been appointed rthern California distributors for u-Z-Ana brand of cooked and eled shrimps, produced by the and Caillou Packing Co., Inc., uma, La., according to Bill Markey, relson, Inc.

Hanasaki Crab's Label Status Is Corrected

In the discussion of "Species of Crab Packed by the Japanese" on Page 52 of *Pacific Fisherman* for May, 1956, it was stated that Hanasaki Crab is permitted to be designated as "King" crab, providing it carries a sub-title designating it as Hanasaki type.

We learn that this statement was in error and that such labelling is no longer permitted.

Hanasaki crab may not now be labelled as "King" crab under any circumstances.

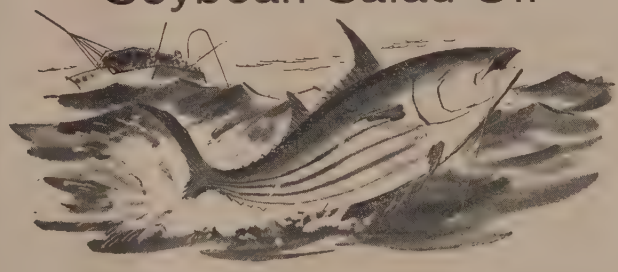
Noice Again Heads Monterey Association

Thomas Noice, California Packing Corp., was re-elected president of the Monterey Fish Processors Association at the annual meeting last month.

Buck Perry, Carmel Canning Co., was elected vice-president; and George Leutzinger, Peninsula Packing Co., secretary-treasurer.

Don Saxby, California Packing Corp., and Buster Sollecito, Enterprise Packers, were elected directors.

You can bet your last FIN on **Archer "S"** America's finest Soybean Salad Oil



If you'll *taste—smell*—and *try* Archer "S" Soybean Salad Oil, you'll see why so many tuna processors are using it.

These processors know that Archer "S" *keeps* the delicate tuna flavor. Helps build customer demand for their products—fast! That's because Archer "S" is refined and deodorized by a continuous ribbon process . . . cannot vary in quality. Every time you order Archer "S" Soybean Salad Oil, you get the *same* clarity of color . . . the *same* purity and blandness.

Archer "S" Soybean Salad Oil

Archer-Daniels-Midland co.
700 Investors Building, Minneapolis 2, Minn.

Canners! Fishstick Processors! When she goes shopping . . .

PUT YOUR BRAND ON HER LIPS!
BUILD QUALITY AS YOU TRIM COST

with

Call collect for fast cannon-ball service in just hours

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- **Storage Depots on East and West Coast**
- **America's Largest Vegetable Oil Tank Car Fleets**

For Complete Information, Phone: **OIL SALES**

A. E. STALEY MFG. CO., DECATUR, ILL

PROFIT PANORAMA!

This battery of De Laval "Nozzle-Matic"® Fish Oil Separators in a large Eastern plant produces better oil with lighter color . . . lower FFA content . . . operates for days at a time without shut-down for bowl cleaning . . . at constant efficiency throughout the run!

These De Laval "Nozzle-Matics" are making *more money* for the plant! ***Write for details!***

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SEPARATOR COMPANY

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trict Standards

Japanese Fishery Men Know Quality Is Good Business in Food Exporting

e long, strong arm and strict rds of the United States Food rug Administration gets the for Japan's position as a food er, and for the high quality ng of our food products in for- arkets."

words and opinions are those nan who knows, for he is the ing director of one of the great nies in the fish business of — a man who sells largely to nited States.

r export food products are of uality because a generation ago rned that only such quality could ported to the United States. ver, in the intervening years we food business have found that uality is good business.

t all Japanese manufacturers in lines have learned this. Too our people rely on the outward rance of their goods and neglect ner quality. Take toys, for in- . Japanese toys are long on and short of life.

ter the war our sardine people a mistake. They got some 'round g' mixed in with a pack of sar- The fish was fresh enough, and sweet, but your Food and Administration tagged it, and rdine canning trade has not yet ered from the set-back.

day our canners and frozen fish rs inspect, and inspect, and in- at every step in order to assure nly first quality goods are ex- . Can't afford to do otherwise." itor's Note—The conversational cter of the above quotations is pplied. This man talks that way, glish. He is S. Matsuzaki, direc- Nippon Reizo Kabushiki Kai- he great freezing and cold storage any of Japan, operating 179 re- ation plants, large and small, and of them concerned solely with ng and storing fish.)

SPECTION STANDARDS— character of the inspection ser- o which Japanese export fish cts are subjected is evidenced in se of frozen tuna, with which the t Frozen Aquatic Product Man- rers Association and the Japan t Frozen Marine Products In- spection Corporation are particularly concerned.

When Japanese tuna vessels are landing fish intended for export—including virtually all of the Albacore, and Yellowfin and Bigeye tuna in the smaller sizes—the inspection association's staff examines the fish upon discharge from the vessel. The tuna is examined again in the freezing process, a substantial percentage of the fish being sampled by drilling, then the fish are tagged as of export quality. Finally, when a shipment moves out of storage and aboard the refrigerated vessel, it is again scrutinized to be certain that its quality has not deteriorated, either through internal changes or outer damage.

Unhappily, even this exacting inspection system cannot always detect undesirable tuna colors, which develop only upon pre-cooking. These colors are not associated with spoilage or adulteration and apparently are not objected to by the Food and Drug Administration. On the other hand, American buyers of frozen tuna require that their purchases meet strict color standards after pre-cooking and reserve the right to reject fish which at that time are too dark to command prime standing with American consumers, or which show the mysterious "green" or "blue" coloration occasionally encountered.

In an effort to trace the factors which produce these undesirable color changes; to find means of detecting them in the raw fish; and of preventing such changes as possible, the inspection corporation is establishing an office in Southern California, from which experts will cooperate in ex-

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UNITED STATES STEEL

amination of tuna before and after pre-cooking.

• *CANNED FISH INSPECTION* — Scrutiny to which Japanese canned fish is subjected is no less exacting than that accorded the frozen products.

Throughout the fish canning areas of Japan there are several inspection laboratories similar to that of the National Canners Association at the Salmon Terminals, Seattle.

There samples are drawn and cut, following the technique developed more than 30 years ago by Drs. E. D. Clark and R. W. Clough in the early days of N.C.A., Northwest Branch.

The laboratory which *Pacific Fisherman* was privileged to visit recently was in the Fisheries Research Station of Shizuoka Prefecture in the city of Shimizu, where some 65% of all Japanese canned tuna is packed in 16 canneries. There it was that Shimizu Shokuhin Co., Ltd., in 1929 pioneered the canning of Japanese tuna for export; and there this same company is a leading factor to this day, with K. Mizushima, its director, acting as one of *Pacific Fisherman's* guides, along with Shoichi Naito of the same company; Toshio Imanishi, managing director of Gotoh Cannery Co.; and Hiroshige Sugiyama, director of Shimizu Suisan Co. Mr. Naito and Mr. Imanishi had returned from business trips to the United States only a few weeks previous to *PF's* visit to their plants.

In the inspection laboratory Shizuhiko Tominaga, the "Dr. Clark" of Shimizu, was supervising the examination of a lot of Pink salmon halves which had been packed in Hokkaido from Pinks taken in the Okhotsk Sea and frozen aboard ship. He was not pleased with the lot, feeling that it had suffered in the freezing, and that neither color nor workmanship w to standard as result.

In another room North Pacific seas-canned salmon was cut — was of exceptionally fine qualit

So with Albacore, and canne ries, cut for *Pacific Fisherman* spection. This latter product—s —is rather new in the Japanese c fish catalogue, but seems to have nite possibilities. The fish are r to the mackerels, but are much sm The canned product resembles C nia sardines somewhat, but the vidual fish are more slender and drical in form, while the skin r a bright, silvery sheen in the can dently little affected by the ca process. Quality was counted co rable with sardines; although of c sauries are not labeled as such. of them are canned with tomato in oval tins, after the manner c chard sardines.

It takes TUBBS ropes to bring in the big ones

the fishing rope with extra muscle

Large or small, your catch won't get away when you use tough, dependable Tubbs Rope Tubbs Extra Superior Manila is made from top grades of pure manila fiber, carefully selected and blended for extra strength and longer working life. Special lubrication and water repellency treatments make it flexible and easy to handle under the roughest fishing conditions. Choose Extra Superior Manila and you'll have extra muscle to protect your catch

For free copy of booklet "Selection, Use and Care of Rope," write Dept. FP-7

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OOD FISH
ARKETING
ction of PACIFIC FISHERMAN--

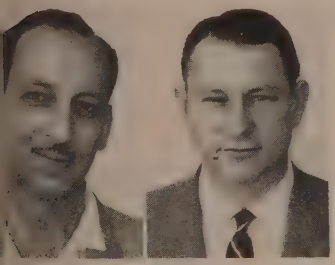
News and Views of National Trade in Fish and Shellfish

July, 1956

F's Sensible Shopper Lists etail Prices in California

Vestgate-California of San Diego, the Breast-O'-Chicken label, have oduced a tuna spread, a mixture of with mayonnaise and other in-ients, which it is claimed will keep finitely under refrigeration.

his tuna spread is mixed in giant es by stirring devices that operate e the spread is being pasteurized ugh heating. The company's re-ch laboratory, headed by William m, conducted many research tests aste before the final formula was ed-upon.



rabonik Ray Lemoi

Los Angeles fish merchandisers, Karabo-vith Freeman's Certi-Fresh Foods and Le-moi with W. A. Burke Co.

s for canned tuna, in the South-California markets, the price was down as a result of the cut of a case by two canneries. *Chicken he Sea* chunk was selling in May as low as 23c a can; *Breast -O'-hken* "Bits of the Sea" for 79c. h again in other markets, *Chicken*

Willis W. R. Bentley

illis heads Crest Importing Co., San Die-d Mr. Bentley is with Berelson, Inc., San Francisco.

of the Sea chunk was selling for 25c, and A & P's solid pack, 7-oz., 27c. *Star-Kist* was as low as 23c, 6½ oz. can.

Del Monte chunk was selling for 21c in May at one store in San Pedro; *Priority* chunk, five for $1.00 at a San Diego chain. *Tropic Sea* bonito flakes and chunks were being advertised in May in Los Angeles, 8 for $1.00.

In the Southern California market there was in May considerable competition in fish sticks, including those processed in the East Coast and local firms. An 8-oz. pack of an eastern label of fish sticks was offered in many stores in the Los Angeles-San Diego area for from 33c to 35c. One eastern processed fish stick package was advertised at 29c, an eight oz. package.

Breast O' Chicken tuna, chunk, was advertised in May for 26c, and contrary-wise, solid pack at 29c. In San Diego, again, Van Camp's chunk was listed at four for 89c and again at four for 87c.

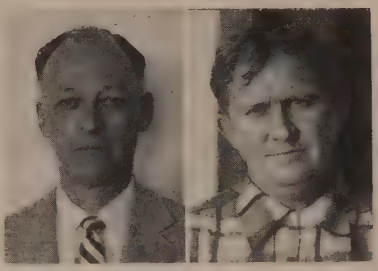
Star Kist noodles and tuna in a 15-oz. can sold for 28c in May as compared to a 14-oz can of noodles and chicken at 31c.

The Alpha Beta chain is advertising its *Top Frost* fish sticks, using "northern cod," in an 8-oz. package at 35c.

Rhodes Joins Dooms

Bob Rhodes, formerly northern California sales manager, Kold-Kist Co. is now associated with the sales department of the William O. Dooms Co., Oakland seafood brokers.

Mr. Rhodes is doing detail work on the frozen fish lines represented by the company, in San Francisco.



R. O. Cole Victor Elliott

Cole is a partner in Fortune Fisheries, San Francisco, and Elliott heads Shrimp Processors Co., San Diego.

Prospective British Salmon Purchases Under-Stated

A serious arithmetical error crept into PACIFIC FISHERMAN'S May issue story on prospective 1956 United Kingdom purchase of canned salmon, estimated in that issue as 150,000 full cases.

J. N. Hyland, vice president and director of sales of British Columbia Packers, Ltd., points this out in a letter which particularizes:

"When the average is weighted by purchases of Cohoes, Pinks and smaller quantities of Chums, in addition to Red Sockeye Salmon, $25 would be a reasonable average; and on the basis of $7,000,000 expenditure this would purchase 280,000 cases. Even on the basis of a $30 per case average value, $7,000,000 would buy in excess of 230,000 full cases."

Half-Million Cases Added to Tuna Quota

The 1956 Japan canned tuna quota has been increased to 1,600,000 cases canned in brine by action of the Japan Export Canned Tuna Manufacturers Association. This is applicable for the 12-month period beginning with April, 1956, and is an increase from the 1,100,000-case quota of the previous year.

California Tuna Operations - May, 1956

(Approximate figures for tonnage and total case pack)

San Pedro		San Diego		Combined
Species	Tons	Species	Tons	Tons
Yellowfin	7,880	Yellowfin	4,109	13,989
Skipjack	3,021	Skipjack	2,501	5,522
Albacohre	861	Albacore	...	861
Total	11,762	Total	6,610	20,372
Pack in cases	569,416	Pack in cases	289,476	858,892

Prices of Pacific Fish in British and Irish Stores

● Here's an idea of the kind of prices the British and Irish shoppers pay for canned fish in representative retail stores:

Chichester, a cathedral town on the south coast of England, showed prices like these, converted into U. S. cents at the rate of 14c per shilling:

Sockeye halves, private label, were rather out-of-line at 63c. Japanese canned "kegani" crab was priced at 42c; while U.S.S.R. *Chatka* King crab was 65c, both in halves, of course.

John West tuna, canned in Peru, was marked 35c for halves, with quarters at 21c.

Del Monte pilchards, packed in South Africa, were 23.3c for the pound oval.

● Bath showed a good deal of Russian salmon, with *Socra* Medium Red talls 'way out-of-line at $1.06½; and neutral label "Fancy Salmon," evidently also of Soviet origin, priced at 87½c. (No bargains there.)

● Across the Irish Sea, Dublin stores of the better sort were well stocked with canned fish. Here are some prices:

Lustre Red salmon halves — a private label — were priced at 42c.

John West "Middle Cut" Sockeye halves were a bit higher, 42.8c.

Libby's Alaska Pink halves were priced at 37.3c; while *Surf* Canadian Chum halves packed by Nelson Bros. Fisheries, were 28c. *Dagger* Canadian Chum quarters were 17.6c.

Deep Sea Alaska Red Talls from Wards Cove Packing Co. were priced at 77c, in sharp contrast to the Soviet Medium Reds seen in Bath at $1.06½ for talls.

● You can never tell about names.

York markets label attractive round steaks of a firm, white fish "Woof".

The inquiring American asks what sort of a fish is a "Woof".

"It's actually ocean catfish; but you could never sell it if you called it 'catfish' ", comes the response. To the American, "Woof" sounds more like dogfish than catfish; and moreover, what they call "Ocean catfish" on the North Sea goes by the name of "wolf fish" on the North Pacific.

● Fresh salmon tops in price all items on the English, Scottish and Irish menus during the spring months. It's *the* fancy item, and priced accordingly.

Fresh Scottish salmon was *wholesaling* at $1.54 the day Billingsgate Market was visited; and it had sold earlier at a season's top of $2.10 per pound—*wholesale*, mind you.

It's good, with a distinctive muscle structure which becomes specially evident when a steak is poached. Flavor is bland and sweet, particularly in the Scotch catch. Irish salmon sampled appeared to keep its color better after cooking, and to have a stronger flavor which appealed to the American palate.

Hilton Adds Sauce

A la King sauce, canned and ready-to-use, is the newest product of the *Hilton* line packed by Hilton Seafoods Co., Seattle. It is offered as a convenience item, specially attractive for use with tuna, crabmeat, shrimp, and other fish and seafoods.

E. H. Schultz R.
Fish salesmen both, Schultz from Los A and Stix from New York.

Frozen Fish-and-Chips In Consumer Packages

Fish and chips in packaged for now appearing on the Canadian ket, and finding ready sale.

Fraser Vale Frozen Foods, C wack, pioneered the business, no tered by Davey Jones Frozen F and Misty Noodles, Ltd., Vanco The product thus far has bee signed primarily for institutional but B. C. Packers, Ltd., will pro enter the consumer package field national scale this summer. The ers are working on the idea of off a 1-lb. sealed package containing fried with halibut for the Easter nadian market and ling cod fo Pacific coast.

The fish would be pieces, an housewife would put the conten the package in the oven for abo minutes to crisp the chips and plete cooking of the fish.

apan's Tentative Salmon ricing Precedes Packing

New-pack prices for Japanese sal- n not yet in the can were uttered the Japan Canned Salmon Sales in June, ostensibly for the U.K. ket. However, these same prices e quoted to American distributors the largest Japanese trading firms basis for business, although con- ation could not be accorded in ance of packing.

is notable that the Japanese open- prices, although declared for the ited Kingdom market, included , Pink and Chum *talls*. These K." prices, as being quoted on a ative basis to American distribu- at presstime, basis of full cases Yokohama, were:

de	Talls	Halves	Quarters
	48	96	96
	$29.00	$31.00	$18.50
er		24.00	
c	16.50	18.00	11.50
m	14.75	16.00	10.00

he sharp increase over 1955, except in Silvers, was declared to be the result of the curtailment of operations due to Soviet insistence, with anticipated increase in costs and reduction in volume.

• American salmon sellers were marking time through June, with virtually nothing to sell and few immediate prospects.

The trade was evidencing a growing understanding of the probability that supplies of salmon will be low this year and prices inevitably high.

Persons who keep a close watch on food supplies and prices voice solemn warning that the price of meat should not be ignored when canned fish is being priced. Travellers fresh from the middle western feed lots point to bargain prices for beef, and the possibility that it will go cheaper.

Tuna also is down, now reflecting in full the effect of the $2 "correction" applied in mid-spring.

lif. Anchovy Catch

nchovies packed in 5 oz. round 's were packed in California for il to the tue of 58,788 cases. This ies was also canned in 1 lb. ovals, 9 cases; 8 oz. buffet, 22,751 and . oblong, 22,817.

rom 153 tons of Pacific mackerel April there resulted 4,630 cases of . talls.

ack mackerel of 1,536 tons pro- ed 517 cases of 1 lb. ovals and 48 cases of 1 lb. talls.

To date 5,470.46 tons of anchovies have been taken, compared to the 35,000 ton limit set for commercial catches by the California State Legislature in 1955. The time period is April 1, 1956, through March 31, 1957.

"B" Is Put in "Puss 'n' Boots"

Coast Fisheries, Wilmington, Calif., a division of Quaker Oats Company, has announced its newly-developed process for adding Vitamin B-1 to its *Puss'n Boots* cat food.

The additional supply of vitamin was recommended following five years of study of a colony of cats and their kittens by veterinary and nutrition specialists. Tests showed that some cats, like some humans, need supplementary B-1.

An advertising campaign on the new development began in May.

Distribution Data Guide Offered Business Firms

The Distribution Data Guide, a publication of the U. S. Department of Commerce, now is available on a subscription basis to all business firms engaged in or interested in the marketing and distribution of the Nation's goods and services.

This monthly publication contains a selective review of current, basic information, statistics, surveys and reports—both government and non-government—of significance to retailers, wholesalers, sales organizations, purchasing agents, transportation and warehousing firms, advertising and market research organizations and many other business operations.

The Guide describes each item of material listed, gives the price and states where copies may be obtained. All items are indexed and cross-referenced in the semi-annual index supplements published with the July and January issues.

An annual subscription to the Distribution Data Guide is $2.00 and may be entered with the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., or at any Department of Commerce Field Office.

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California Canned Tuna Pack — April, 1956

White Meat	Solid Pack	Standard Pack	Chunks	Grated, Flakes	Dark & Light	Tonno	*Misc.	Total
1 lb.	260	87						347
½ lb.	44,603	12,943	26,344	7,295	...	...	...	91,185
¼ lb.	1,935	509						2,444
½ lb.							1,536	1,536
TOTAL in ½ lbs.								**94,637**
Light Meat								
4 lb. (12s)	602	...	723					1,325
1 lb.	362	143	10,807	1,125	..	...	...	12,507
½ lb.	155,142	4,120	477,450	82,680	4,831	15,359	...	739,582
¼ lb.	7,630	...	38,872			†14,737	...	61,329
½ lbs.							4,462	4,462
TOTAL in ½ lbs.	...	...	...					**809,696**
TOTALS	**210,534**	**17,802**	**544,266**	**91,100**	**4,831**	**30,096**	**5,998**	**‡904,333**

*Tuna specialty packs converted to ½ lbs.
†¼ lb. 100s.
‡Total case pack converted to ½ lbs.

Polyethylene Pouching Life-Saver for Crabbers

● Brine freezing and bagging of crabs in polyethylene proved a lifesaving combination for the Washington coast crab business this spring, according to Bjarne Nilsen of Westport, who had an active part in production as a fisherman.

Crabbing on the Washington coast this spring was good—due in substantial degree to the weather, which was generally free from damaging storms. Rarely has there been less loss of gear.

Most of the crabs were taken along the four-fathom line, with a few as deep as five fathoms.

Moreover, the percentage of undersized crabs was large—promising well for next season. A great many barely missed legal size and had to go back to the bottom to grow a little more.

But to get back to the part played by the brine freezing and bagging of crabs:

This development in marketing, with its great expansion of the area in which Pacific crabs could sell, came at a very fortunate time, as the California demand for crabs this spring was well supplied by abundant production in that state's own waters. If it had not been for the fact that the bagged crabs could be sold in the Middle West and even farther east the Oregon and Washington producers would have had a hard time to market their abundant catch.

● Shellfish sellers at the National Fisheries Institute convention in Miami Beach, Fla., this spring reported remarkable success with the cragged crabs, which seemed to find a place in retail frozen cabinets and consumer acceptance to a degree that previously had resisted the Dungeness variety.

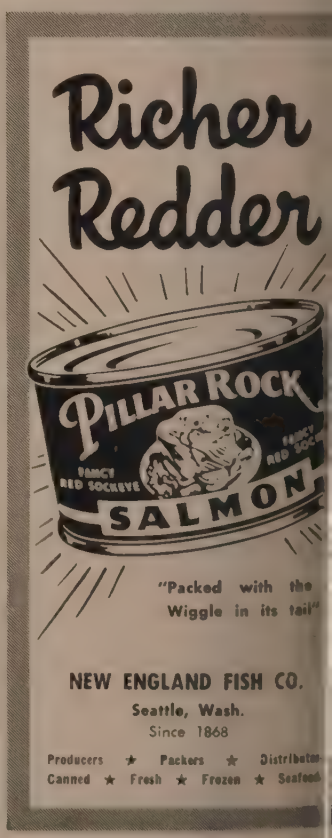
Ike Alhadeff W. C. E

These denizens of the Seattle waterfron right at home on Miami Beach's golden at the NFI convention.

Tuna Fishing Movie Is Van Camp Promotion

A tuna fishing action movie fi aboard the *Dominator*, new all- tuna clipper owned by George Sc of San Diego, has been released promotion purposes by Van C Sea Food Co., reports Harold Mo Jr., Van Camp fleet captain.

The movie is "t.v." length an being shown on television, to sch and civic organizations, and to b ers of *Chicken of the Sea* sea products.



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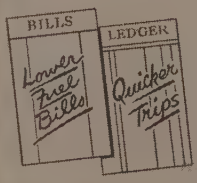

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Dates Set for National Tuna Week

With the emphasis on "back to school," National Tuna Week has been moved up on the 1956 calendar. Dates this year will be September 13-23, according to the Tuna Research Foundation.

This 11-day period will also tie-in with the Annual Fishermen's Fiesta at San Pedro, an event that receives national publicity and which will add strong impetus to the National Tuna Week drive.

Bringing the date forward to September will provide additional material in the overall publicity and promotional campaign stressing the nutritional value, and the high content of vitamin B-12 in this protein food, plus its economical value to the consumer.

Yakutat-Douglas Crab Operation Is Undertaken

Roy Furfiord, Grays Harbor crab fisherman and packer, who has been in-on the Southeast Alaska-Dixon Entrace crab operations in recent years, has taken a lease on the plant at Douglas, Alaska, and this season is heading a venture which will draw its crabs from the Yakutat grounds, where the crabs are said to be big enough to kill a bear.

He took his outfit north by the first of June, counting on the *Barbara Lee, Josey, Tillie M., Skipper* and *Gary. Denn* primarily for fishing and the *Halloway,* a freezer barge for brine-freezing.

Crab meat will be picked and whole crabs brine frozen.

Calpak Takes a Hand In Canadian Operations

California Packing Corporation reports it is acquiring a two-thirds interest in Canadian Canners, Ltd., largest Canadian canner of fruits and vegetables.

Calpak is already the largest such canner in the world: and also has substantial interests in fish packing. In its last fiscal year it reported sales of $250,000,000, while Canadian Canners, Ltd., had approximately $42,-000,000.

Early Japan Crab Canning Is Light

Japanese home-based crab canning operations were slow in getting under way this spring as result of heavy ice pack conditions in the vicinity of Nemuo, the principal King crab packing section of Hokkaido.

In general, reports indicated that crab canning at shore stations was about a month late of normal in attaining full pace.

Trinity River Fish To Be "Taken for Ride"

Measures to protect the salmo Steelhead during construction Trinity River reclamation project been agreed upon by the Cali Department of Fish and Game, Bureau of Reclamation, and the Fish and Wild Life Service.

Migrating salmon and Steelhea be hauled around the constru area in tank trucks to their spa grounds. They will be caught belo Lewiston dam site in a fish tra loaded into the trucks.

Fish and Game officials est that the operation will involve be 30,000 and 50,000 king salmo nearly equal number of Steelhead an undetermined number of salmon.

Construction of the Trinity da version tunnel, which will cut off of the spawning beds, will begin s ly and will continue through Total closure of the river to migr fish is scheduled to take place in

Ted Ray Tells About No. 1 Hole-in-One

Ted Ray of the Leslie Salt Co. Francisco, who spent many years salty salesman on the Seattle w front, writes PF on the subject o hole-in-one which Mills Hay ma the spring tourney of the Fish teers.

Our June issue says this wa first ace in history of the Divo but Ted Ray writes:

"The first hole-in-one made Fish Divoteers tournament was by the late Harry Tillman of San Fishing & Packing Co. The reas remember it so well is that I wa tunate enough to have been the T master at the time and, in prese him with a special award I invite the members to go to the bar dinner and Harry would buy th drink. They all accepted."

China-Japan Fish Pact Extended for a Year

Extension of the fishing agree between China and Japan for an year beyond its June expiration announced at the end of May.

It is a quasi-official understa entered into between the China eries Association and the Chin anese Fisheries Council.

Announcement of the extensio that the two associations agreed harmonious operation has resulte conservation had been served. I also held that an official agreeme tween governments concerned w be desired.

In-Iced Halibut is Flown uccessfully to Winnipeg

ishermen's Co-operative Federa- of Vancouver, B.C., got into the ing fish" business this Spring, and long it stays in and how deep— depend on the results of the early eriments.

he Federation shipped 675 pounds fresh halibut direct to the big T. on Co. department store in Winni- one night late in May, and the fol- ing morning it was being offered sale to Winnipeg housewives and g snapped up, even at fancy prices.

he shipment was one of the first mercial shipments of fresh fish by e from the British Columbia coast, ough B. C. Packers did some ex- mental work along this line with ion last Fall.

Vhat distinguished the Federation's ment, personally supervised by s Manager Joe E. Antonelli, was fact that the fish was not only n to market—in a matter of about hours—but was packed without or refrigeration.

Ir. Antonelli and F. E. Pope, ght manager for Trans Canada Air es, told PACIFIC FISHERMAN the carton used for the shipment originally developed by Hinde & ch, but the design was modified Canadian Boxes, a Vancouver sub- ry of Crown Zellerbach, Canada, made especially for the purpose. he cartons were made of corru- gated cardboard with a capacity of 100 pounds each. The fish, fresh from the hold of a halibut boat just arrived from the banks, was placed at a temperature of 32 degrees F. in pliofilm bags and then put into the 100-pound carton, which was sealed airtight and inserted into another carton similarly constructed and only slightly larger. The whole package was carefully insulated sealed and wired, trucked to the Sea Island airport and loaded onto a Winnipeg-bound plane.

Mr. Pope says that if the cartons packed at 32 degrees were exposed in an outside temperature of 72 degrees the temperature loss inside the package would be only 6 to 8 degrees during the flight.

Trans Canada Air Lines is hoping to develop shipments on a continuous basis, possibly between some West coast packing company and retail outlets direct to save cost and time in handling.

"Shipping fish by air can do a lot for the fish business," said Mr. Pope. "Thousands of consumers in the prairie provinces and all through the central and Middle Western states still don't know what really fresh Pacific fish tastes like. Once they know, they'll be steady customers.

The price element, of course, is one of the adverse factors. Winnipeg consumers probably had to pay as much as 60 cents or more for the halibut sold in Vancouver a few hours earlier for 25 cents, a pound.

98% Tinless Cans May Enter Fisheries Field

Although fish products are not currently included in application of the 98% tinless cans announced by the American Can Co., the manufacturer expects that they may prove applicable to fish packing in the future.

In these "margin-plated" can only a narrow strip along the soldered side-seam is tin-plated to insure hermetic seal. The entire remainder of the can is enamelled. Pet foods and coffee now are being packed in such cans, with beer as the next prospective product to which they will be applied.

Flewelling Visits Coast

Frank W. Flewelling, manager, netting sales, The Linen Thread Co., New York, was on the Pacific Coast last month visiting the company's distributors in company with John E. Richardson, Pacific Coast manager of the company, who makes his headquarters in San Francisco.

A. W. Wilde Is Pacific Spokesman on Board

Executive committee of the Industrial Products Division of the National Fisheries Institute includes A. W. Wilde of Seattle as the Pacific representative. He is interested in Alaska Reduction, Inc., operating a reduction plant at Seldovia.

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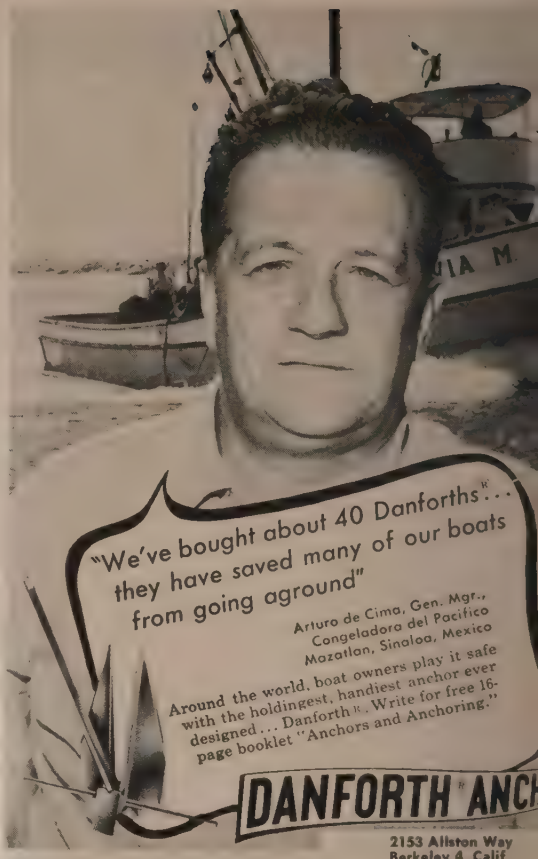

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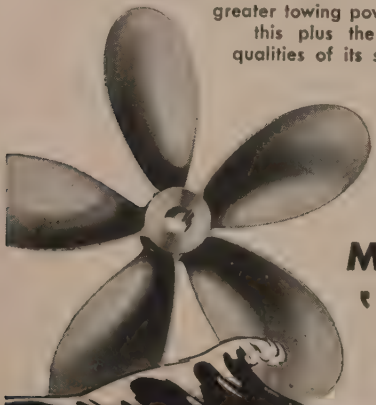

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uction Plants Sold

B. Berglund, Berglund Sales & neering Co., San Francisco, has nased the Pt. Edith Fisheries sar- reduction plant at Pt. San Pablo, mond. They also bought Red Fisheries Plant No. 1 sardine re- on plant from Parr-Terminals, and Red Rock Fisheries Plant 2 sardine reduction plant from s R. Townsend, San Francisco ries consultant. The machinery, n Enterprise plants have been antled and sold.

e You Seen Any Sealed tles on the Sea Shore?

veral sealed bottles from the it, washed across on the ocean's s and recently picked up on the rts' sandspit, are of interest to the on fish commission. Cards inside or current information in an in- gation of the Japanese Pacific sal- fishery. It is requested that any- finding such a bottle contact the on fish commission before return- ne papers found inside.

the three bottles recently found, vas from the Takai Regional Fish- Laboratory, Oceanographic sec- of Tsukishima, Tokyo, Japan, and were from Formosa. The bottles sealed with corks and a tightly ring rubber-like material that had ined waterproof throughout the journey.

side the bottles were numbered that were addressed and stamped check spaces for desired informa- They were printed in three lan- es — Japanese, English, and what tentatively identified as Russian. e information requested was: lo- n of recovery, date of recovery, and whether the bottle was taken at sea or on the beach.

The fish commission is awaiting further information from the Japanese fisheries department concerning the bottles found off the Oregon coast.

Beachcombers finding such bottles are asked to contact the Oregon fish commission research laboratory at 20 S. W. Bay Boulevard, Newport, Oregon, or the director's office at 307 State Office Building, Portland.

Death Takes Kris Wuori, Astoria Fish Packer

Kristian "Kris" Wuori, well-known Astoria custom fish packer and former tailor, died recently in a Portland hospital. He was 81 last Christmas. Mr. Wuori had been in failing health for some time.

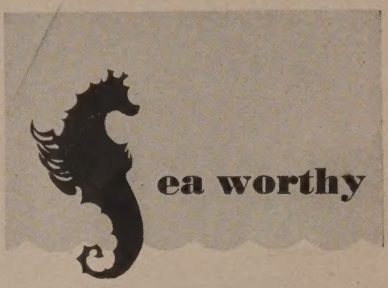
Studies to Be Made Of Sports Fishing Takes

The Southern California Fisheries Association has just announced that it has a new member, the Southern California Trading Co.

Their Conservation Committee, headed by Sam DeLuca of State Fish Co. of San Pedro, is working toward gathering statistics to show the tremendous amount of fish, such as yellowtail and barracuda, which are taken by party and charter boats during seasonal sportfishing periods and such derbies as the Yellowtail Derby at San Diego.

There is indication all along the Pacific Coast that commercial fishermen, wholesalers, etc., are becoming very much aware that to offset the lobby efforts of sportfishing groups, statistics are necessary to show the amount of fish that are taken by sportfishermen each year. For example, a figure of 430 party boats which work from Santa Barbara to San Diego has been estimated as working craft, and approximately 600,000 fishermen are taking fish from Southern California ocean waters.

The Association's June meeting was held June 12, with golf and a dinner as an annual activity. General Chairman was Frank Tsuchiya.



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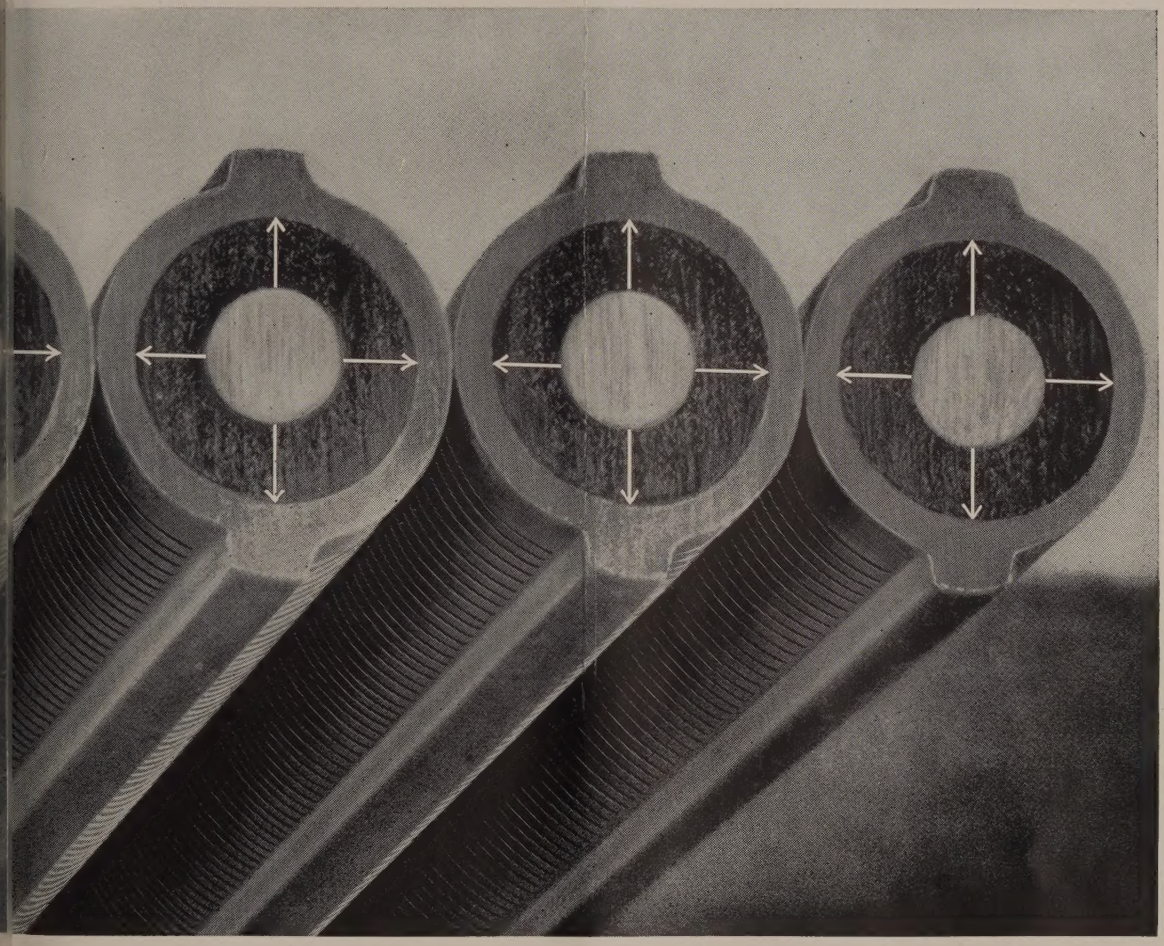

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